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ABSTRACT

The Texas farm labor pool is made up almost entirely of Mexican Americans; many of these are naturalized but the majority are native-born American citizens whose families and ethnic ties remain in and around the border. All of these field workers have, at some time, migrated to a job or in search of a job either interstate or within the boundaries of Texas. Migrant farm workers are part of a distinct subculture in American society and are seemingly thwarted in any attempt to break out; in Texas, 80% of them are boxed in by these facts: family earnings for the most part below poverty level; home base being the most depressed area in the nation; low educational achievement (58% functional illiterates); substandard housing both at home and in the working areas; little health education and insufficient health attention; extremely low competency in English; and a dearth of marketable skills. Figures for 1970 indicate a 7% decrease in migrants and approximately a 10% decrease in job opportunities. Help can come in the form of subsidy and welfare and/or training programs, which need to be expanded. This annual report discusses Texas agriculture and migrant labor, including sections on mechanization in agriculture; alien labor and immigration; the Texas inter-agency task force on migrant labor; scouting and migrant youth; current developments in education, housing, health, and job development; and trends in migration. A related document is ED 040 810. (JB)

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TEXAS MIGRANT LABOR

Annual Report
1970

The Texas Good Neighbor Commission

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PREFACE

The Good Neighbor Commission of Texas is an agency of state government which is charged in its basic law, among other things, to coordinate the work of federal, state and local governmental units toward the improvement of travel and working conditions of migrant laborers in Texas. A specific item in this responsibility is to survey conditions and study problems related to the migrant workers.

In carrying out this general mandate the Commission, for a number of years, has utilized its own research and has received excellent cooperation from federal, state, local and volunteer agencies in the provision of data related to programs they operate for the migrants and their families. This material is invaluable in the preparation of an annual report which is factual and timely.

The Commission is grateful for the collaboration it has received and welcomes comments and suggestions on ways in which this Report may better serve the needs of the migrant workers of this state.

TEXAS MIGRANT LABOR

Annual Report

1970

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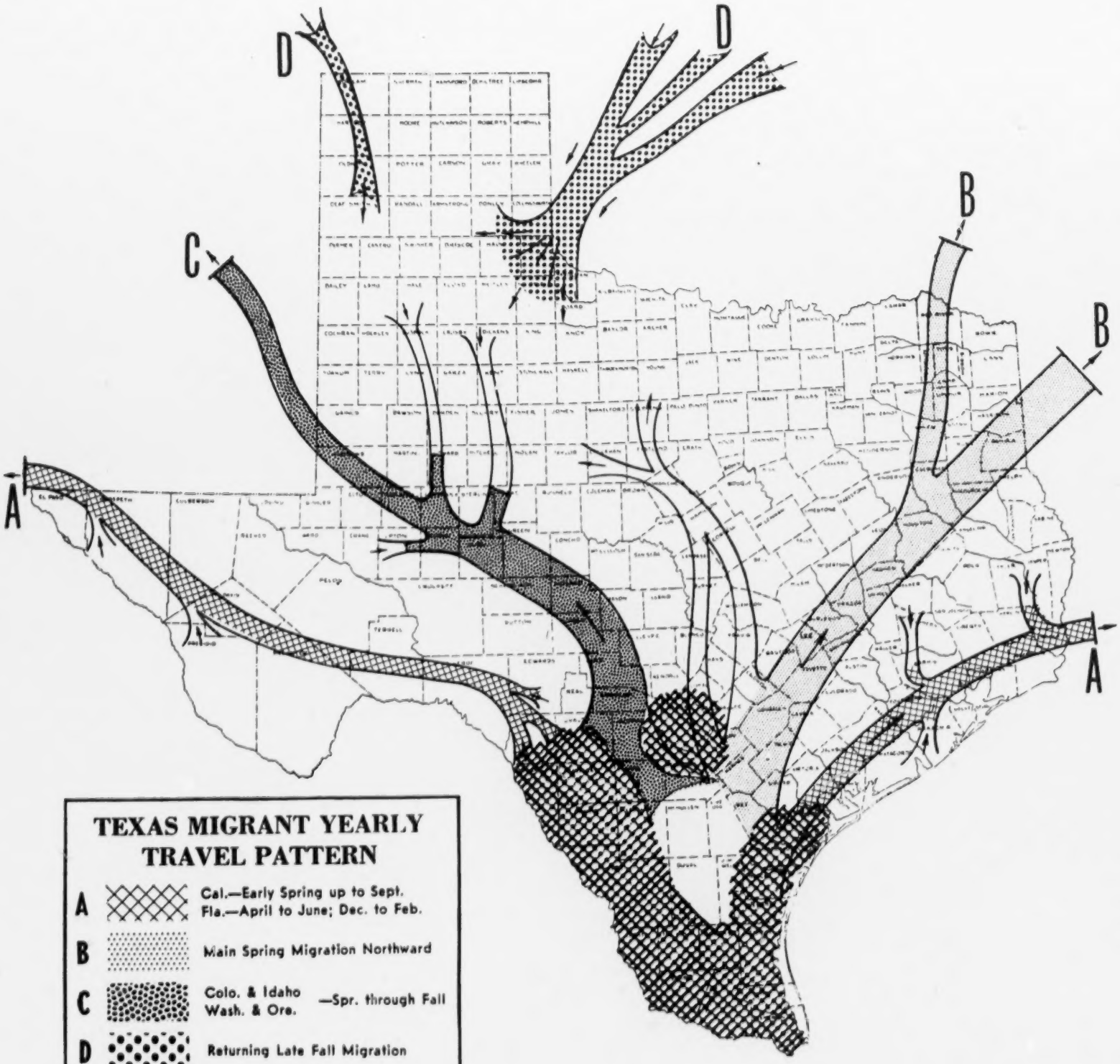


TEXAS MIGRANT YEARLY TRAVEL PATTERN

A		Cal.—Early Spring up to Sept. Fla.—April to June; Dec. to Feb.
B		Main Spring Migration Northward
C		Colo. & Idaho Wash. & Ore. —Spr. through Fall
D		Returning Late Fall Migration
		Principal Source of Migrant Labor

TEXAS MIGRANT LABOR—AN OVERVIEW

There are numerous definitions for a migrant, some complicated and others not; however the one most generally accepted is: "A worker who is engaged primarily in agricultural or related seasonal industry, or who has been so engaged at one or more times during the past two crop seasons, and who must move so far in the course of his regular annual employment that he must establish a temporary residence at one or more locations away from the place he calls home." In essence this defines the people with whom the present report will deal. However, more than just a definition, it is felt that in order to understand better the present day migrant and his situation, it would be well to try and follow his evolution by means of a brief Overview.

Any overview on Texas migrant farm workers should present a background sketch on how the migrant came into being and what effect his particular role has had on the State of Texas and himself. Agriculture in the United States has always required help with planting and harvesting and in the beginning the principal sources of supply for farm labor were Europe and China. The motives that brought the European immigrants to our shores were many and varied but in general those that entered agriculture as workers did so as a means to an end. As soon as their contracts were up or as soon as they were financially able these immigrants would seek independence by establishing their own farms, by going into commerce or by entering the newly emerging field of industry. In the meantime their places were taken by a seemingly endless supply of new immigrants and the farmers rarely experienced a labor shortage. This picture remained essentially unchanged until the turn of the century when the first wandering Negro farm workers, on the move from the South, were being used in the New England states. These people were the forerunners of the far ranging migrant as we know him today but it was still to be a number of years before Texas farm workers would begin to shape themselves into a migrant farm labor pool.

With the advent of the twentieth century some marked changes were beginning to take place in the agriculture industry and its labor needs. Some factors involved were immigrations restrictions on Europe by the Alien Contract Labor Law and the fact that Asian immigration had long since been curtailed; the growth of the population and the growth of the railroads; an expanding industry and trade; and an expanding diet, to mention but a few. Up until now we have been dealing with the permanent immigrant who had come to this country seeking work and citizenship. It then followed that the Immigration Act of 1917 detailed the requirements to be met by Western Hemisphere aliens seeking temporary admission to work in industry or agriculture for a fixed length of time under controlled conditions. Later, when national quotas were established in 1924 for the Eastern Hemisphere, temporary workers began moving across our borders from Mexico and Canada and coming in from the British West Indies (see Table I under "Alien Labor and Immigration") but the movement was of little significance until after the U.S. economy began to recover in the mid 1930's from the depression. It did become significant; however, when the manpower shortage caused by World War II resulted in the first Mexican nationals

arriving on farms in the United States to provide needed farm labor. These workers were called "braceros" (from the word brazo, meaning arm) and their appearance on the farm labor scene did much to help control the entry of illegal "wetbacks" who heretofore had little difficulty in finding low pay work in Texas and California fields.

Almost immediately the demand for import labor for peak season harvest in the Northwest, the Mid-West and the Great Lakes area was to involve thousands of workers. With equal speed it became apparent that regulations had to be developed, and quickly, to control and safeguard these individuals while in the United States on a temporary work assignment. The initial agreement between the governments of the United States and Mexico made in late 1942 was a good start but not sufficiently comprehensive, and it was not until July of 1951 that Congress enacted Public Law 78 (the Bracero Act) which codified and regulated such matters as recruitment, transportation, working conditions, contractual obligations, etc. In all honesty, any program involving thousands of men in a strange environment, hampered by a language barrier and homesickness is bound to produce complaints and some discontent, but alleviating the labor squeeze on the U.S. farmer and giving a boost to the Mexican economy (95% of all foreign agriculture workers were Mexican aliens) leaves no doubt as to the overall benefits of the program.

The year before the Bracero Act came into being 76,500 foreign workers (67,500 Mexicans) entered the United States for temporary employment in agriculture. The first year of the Act that figure rose to 203,000 (192,000 Mexicans) and in 1955, and the subsequent four years, the average was well over 400,000 legal Mexican entries per year. These were the peak demand years and by 1960 the yearly influx of aliens began to decline, due in part to growth in the domestic labor supply and also because of modifications to the law outlining stricter standards. This decline continued until 1964 when only 178,000 workers were brought in from Mexico and it was at the end of this same year, lacking congressional renewal, that PL—78 ceased to exist. Theoretically, there should have been no more Mexicans imported for field work after 1964 but in reality it took three years to entirely phase out the program as some temporary "immigration" (under PL—144) was permitted to certain areas where worker shortage had been critical.

During the entire period from World War II until the end of the bracero program the migrant farm worker population had been constantly on the increase, particularly in Texas and California and specifically in the Lower Rio Grande Valley. This was due in part to the continuous immigration of unskilled workers from Mexico who settled in the Valley to take part in its agricultural growth and still remain close to Mexico. But at the same time, Valley farm jobs, being temporary and seasonal as is true in all agricultural areas, created the necessity for seeking additional employment in areas away from home and this migration soon became a yearly routine closely linked in place and season with the bracero demand. It follows, that as the flow of braceros was being halted and Texas farm workers were relieved of foreign competition, many new work opportunities appeared in the areas formerly served by braceros and consequently more Texans entered the migrant stream. This change of circumstances, to away from home and out of state employment, although somewhat fortuitous, was very timely as by 1964, cotton, our most labor intensive crop, was 90%

machine harvested which had caused in one short decade the displacement of literally thousands of field workers.

The Texas farm labor pool is made up almost entirely of Mexican Americans, many of whom are naturalized but the majority are native born American citizens whose family and ethnic ties remain in and around the border. All of these field workers have, at one time or another, migrated to a job or in search of a job either interstate or within the boundaries of Texas; either as singles, as a family unit or as a crew member. They have all tasted the bitter pills of discrimination, deprivation and poverty and fatalistically see and expect little change for the better at their level. The migrant farm worker is part of a distinct subculture in American society and seemingly thwarted in any attempt to break out; in Texas 80% of them are boxed in by these facts:

1) Family earnings for the most part below poverty level
2) Home base being the most depressed area in the nation
3) Low educational achievement; 58% functional illiterates
4) Sub-standard housing both at home and in the working areas
5) Little health education and insufficient health attention
6) Extremely low competency in English
7) A dearth of marketable skills

The agricultural areas producing labor intensive crops remain essentially unchanged from year to year, so it follows that the migrant's travel pattern undergoes very little change. However, this does not mean that he can depend on the same amount of work and earnings just because he returns to the same area even though he may be carrying a firm job commitment. Rather, he finds himself always dependent on chance factors over which he has no control: acreage planted, weather for crop development, early or late crop, weather to permit harvesting, job competition, etc. Even with a well planned season backed up with job referrals, there is no real guarantee that he will find the employment for which he has traveled so far and that he so desperately needs. His is the same gamble as the grower or processor except that his personal stakes are higher. If he loses he has no way to buy back into the game, nor can he "pull himself up by his bootstraps" by merely applying the singular will to do so.

As we have shown in previous reports the total number of Texas migrants on the stream has decreased, since the big upward spurt of 1965, by 3 — 4% each year but figures for 1970 indicate a 7% decrease in migrants and approximately a 10% decrease in job opportunities, meaning less work per worker. Since many of these people live at a bare subsistence level, if their earnings deteriorate and bring-back-home money decreases it is soon manifest when they are at home base and the State of Texas must then intervene in their behalf. Help can come in the form of subsidy and welfare and/or training programs structured to prepare the person for work other than in agriculture. It is in this latter area that various agencies are exploring, with commendable success, but it is virtually impossible to keep pace with the ever increasing need unless the present programs are greatly expanded.

By way of concluding this Overview we cannot over-emphasize the critical situation in which the migrants and the State of Texas find themselves and those who in the past have ignored the plight of the migrants, intentionally or otherwise, will now have to face the multiple problems involved. The migrant's problems are with us, they are many and real problems and solutions must be found if we are to bring these people into full participation in a society of which they are a part and in which they have a rightful place. A true awareness that there is little opportunity for the uneducated person who possesses no skills and speaks little or no English (and that our migrant farm workers fall into this category) will hasten the further development and promotion of programs aimed at easing the pressures which burden this group.

TEXAS AGRICULTURE AND MIGRANT LABOR

Although each year since 1966 the total national crop production has shown an increase, 1970 seems to have stalled. Compared to 1969 with a total worth of $24 billion dollars, which was up sharply from 1968, we find 1970 valued at $23.4 billion dollars amounting to a decrease of 2.5%. The responsibility for this decline appears to have been a faltering feed grain production due in part to reduced plantings and to the corn blight in the Midwest. The agricultural picture in Texas was quite different, however, with a substantial 16% gain over an almost disastrous 1969 and reaching a total of $1.405 billion dollars. Cotton came back strong with a 14% gain to take first place again as the state's principal crop after having been displaced the previous year by sorghum. This percentage would have been somewhat greater had conditions been normal in the Lower Rio Grande Valley. Hurricanes Celia and Ella blew in with excessive rains damaging crops in the coastal areas and creating favorable conditions for high cotton infestation which resulted in this area producing a meager 188,000 bale harvest—one of the smallest in the Lower Valley's history.

In addition to cotton, field corn showed a gain of 29%, oats were up by 14% and sorghum gained 6%. Most of these grains came from higher yields attributed to favorable weather conditions during growth and harvest. Wheat and soybean production totals were both far below 1969 (which had been a very poor year) by 21% and 42% respectively, however this can be explained by the fact that the planted acreage had been reduced by a corresponding percentage in each case. Getting back into line after 1969, as the following table illustrates, once again our three most important crops accounted for two-thirds of our total agricultural value.

Contribution of the Three Principal Crops

	1970	1969	1968	1967	1966
Total dollar value: (in billions)	$1.405	$1.214	$1.431	$1.277	$1.268
Percentage contribution:					
Cotton	30%	23%	31%	29%	30%
Sorghum	26%	28%	22%	27%	25%
Rice	8%	8%	10%	10%	9%
Total contribution:	64%	59%	63%	66%	64%

Weather was again the year's most important "unknown factor," generally favorable until after midyear and then it really imposed its will as only Texas weather can. The Lower Valley went from excess moisture to an acute lack of it during a ninety day period in the Fall which considerably reduced the winter vegetable production. An early freeze on October 8th in the High Rolling Plains almost stunted the cotton crop and killed back all vegetables (this weather quirk was a repetition, almost to the day, of a hard freeze in 1969).

In general the state was able to overcome, or at least live with, the weather and despite the adversities the total vegetable crop was able to show a 16% increase over 1969 and reach an unexpected value of $141 million. However, although agriculture put in a good performance and almost reached the 1968 total worth figure, such was not the case with job opportunities for Texas migrant farm workers. The following table shows vividly what is occurring in the area of field and harvest work during the last four months of the year and its effect on our intrastate migrants. One reason for the year to year reduction in migrant movement within the state is the increase in migrant families settling out in the work areas—this is particularly true in the Plains-Panhandle area—however, the principal reason is that job opportunities in agriculture are inexorably diminishing with no possibility of a turn-about.

STATEWIDE SEASONAL EMPLOYMENT – INTRASTATE MIGRANTS
(thousands)

Year	A	M	J	J	A	S	O	N	D
1968	1.3	2.2	9.5	19.4	13.9	6.4	5.9	5.8	12.0
1969	1.5	2.6	10.0	20.3	14.5	4.3	5.0	4.4	7.3
1970	2.0	2.1	7.0	19.4	14.6	3.5	1.5	2.7	5.6

Texas Employment Commission

Another way to consider this unremitting attrition in job opportunities that might better be understood would be to examine data on total job placement—linking a person with a job. The following figures, obtained from the Texas Employment Commission, leave little doubt as to what has been happening to job placements in seasonal work during recent years. Although the drop from 1969 to 1970 is not as drastic as between previous years, it is of little comfort when one considers that from 1967 through 1970 the total decrease in job placements has been over 25 percent.

Seasonal Farm Job Placement in Texas

	1970	1969	1968*	1967
Total Placements	195,600	206,000	234,000	263,000
Average per month	16,305	17,220	19,506	21,977
High month	28,695 Aug.	39,028 June	38,865 June	38,193 June
Low month	5,290 Sept.	6,812 Sept.	7,607 Jan.	7,795 Oct.

*The devastation by Hurricane Beulah September of 1967 caused a slow start for the Lower Rio Grande Valley in 1968.

The continued shrinkage of unskilled jobs in agriculture is a result of continued interest in mechanization and herbicides, and this interest is becoming more widespread as the economic feasibility of these labor substitutes is established. The part played by the university extension services throughout the state cannot be underestimated or ignored. They are very deeply involved in horticultural development, but also they are active in machine design and innovation as we will bring out in our next chapter. The use of "broadcast" planting, application of pre-emergence weed killer, mechanical aids for transplanting, mechanical harvest of certain cannery bound vegetable crops, etc. all tend to accelerate the loss of work opportunities.

Texas produces one-third of the nation's cotton and twenty years ago this was the most labor intensive crop in the state. There was a sea of field workers in continuous ebb and flow across the state working in planting, weed hoeing and later hand picking the crop in accord with the different regional seasons. Texas, at that time, actually had an "in" migration of out-of-state workers to help with cotton—this is no longer true. Today herbicide use has dramatically reduced hoeing demands while mechanical pickers and strippers perform 98% of the harvesting. Mention should here be made of a new machine being field tested in the Lower Valley that can pick row or broadcast cotton and in the same operation cut and shred the stalks. During the period of adjusting to cotton mechanization our displaced intrastate migrants were, in ever increasing numbers, forced to move into the interstate migration in search of work. This out migration from Texas reached its peak in 1965 when work formerly done by the "braceros" became available. Since then the migration has decreased by 3 — 4% each year until 1970 for which year the Department of Agriculture estimates the reduction to be seven percent. We are in general agreement with their figure but feel it is conservative; even though it is impossible to prove any figure, we consider twelve percent to be realistic.

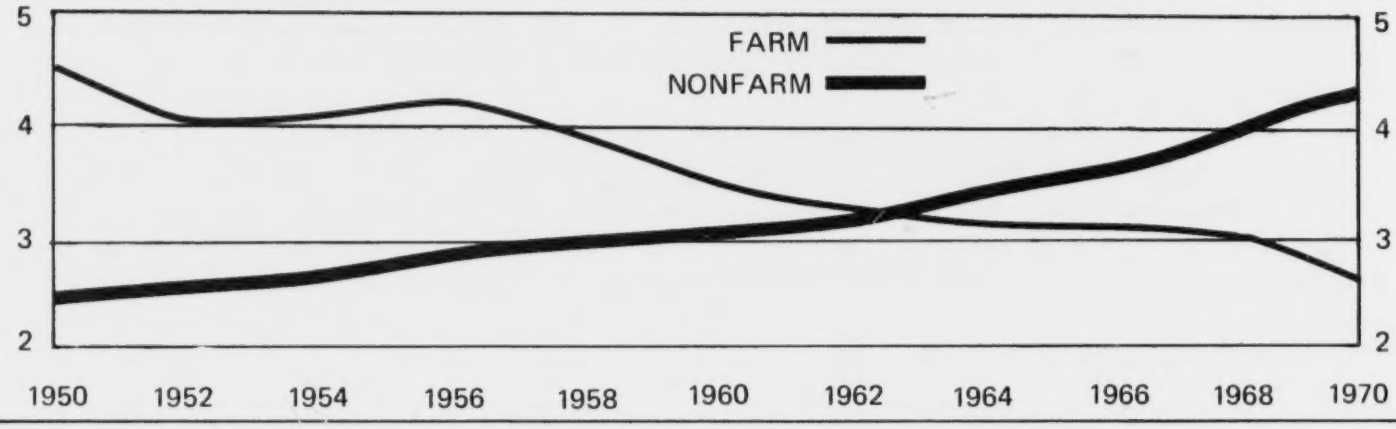
TEXAS COTTON

Year	Acres Planted	Harvested	Yield	Bales	% Change Prev. Year
1964	6,225,000	5,675,000	348	4,123,000	
1965	5,850,000	5,565,000	402	4,668,000	+11.3
1966	4,265,000	3,968,000	385	3,182,000	—32.
1967	3,960,000	3,525,000	376	2,767,000	—11.
1968	4,450,000	4,125,000	404	3,475,000	+23.
1969	5,175,000	4,675,000	305	2,862,300	—17.5
1970	5,251,800	4,851,000	335	3,247,000	+13.

This table on cotton statistics shows the ever changing production picture and the wide variation in yield in our Texas crop. Although the 1970 yield is a ten percent improvement over 1969, it is still far below 365 pounds per acre which is the average of the last seven years contained in this table.

The economy of Texas is presently in a growth era of near-boom proportions and continues among the top four states with the highest percentage increases in gross product. Population growth (last census up 17% to 11,196,700), tourism (21,116,000 visitors last year spent $1.47 billion), agricultural exports (cottonseed, sorghum and soybean products had notable export increases), cattle sales (pure bred stock air freighted to Argentina, Chile and Africa) are all important factors in our economic growth but the endeavor that makes the biggest contribution is nonagricultural industry. From this twenty year chart of employment trends, drawn from T.E.C. data, we see that agricultural and nonagricultural employment have essentially the same straight line angle, but in opposite directions. Agricultural employment has been on a steady decline since 1956 (except for a temporary leveling off following the termination of the bracero program) but now the decline curve is becoming steeper as more migrant job sources continue to dry up.

ANNUAL AVERAGE AGRICULTURAL and NONAGRICULTURAL EMPLOYMENT TRENDS, TEXAS
1950-1970 (farm figures are shown in hundred thousands, nonfarm in millions)



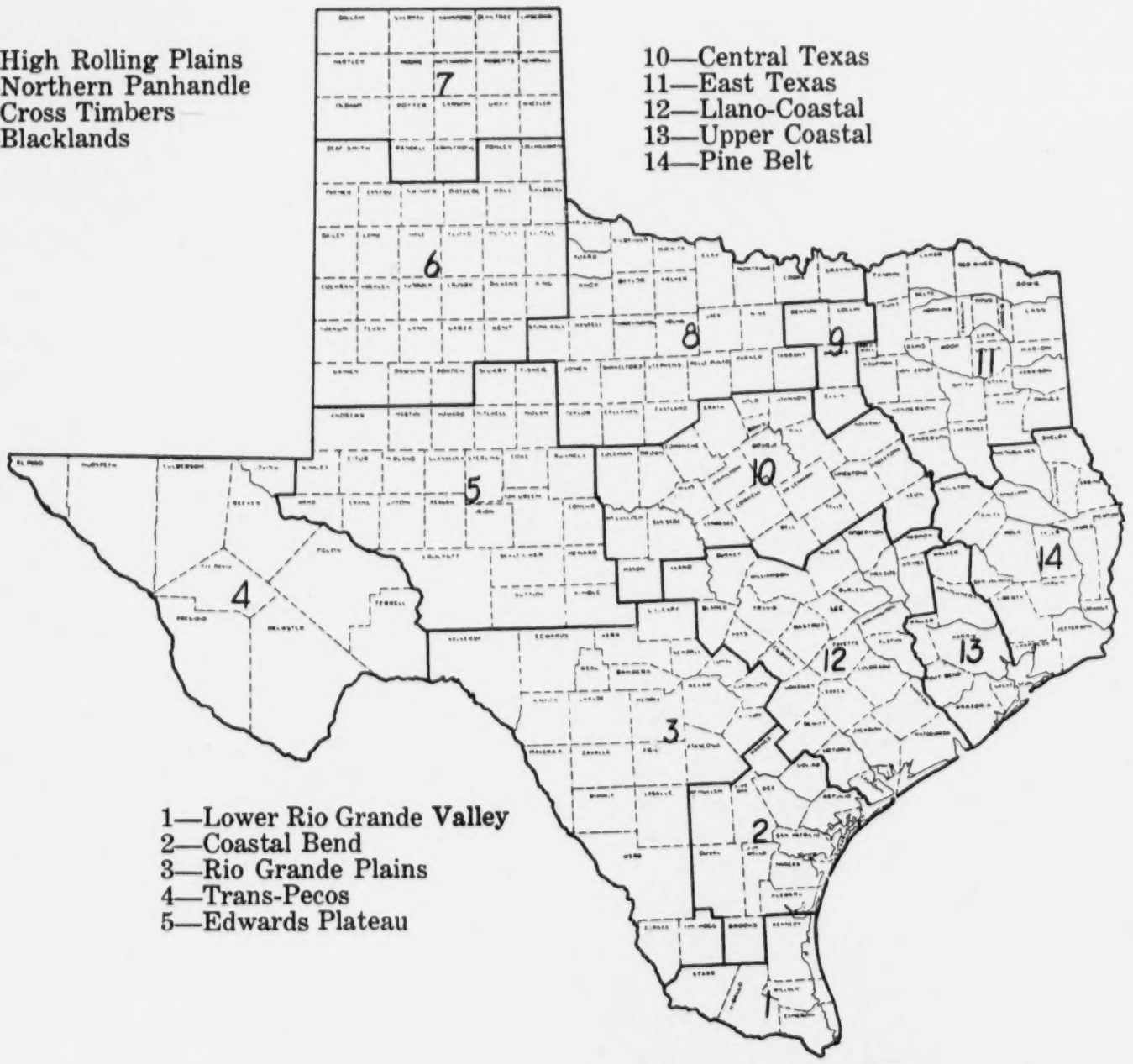
Total employment in 1950 was 2,960,000 and increased to 4,527,800 by 1970, while during the same period agricultural employment slipped from 461,000 to 269,100. Whereas in 1950 agricultural employment was 15.5% of total employment it was only 6% of the total in 1970; thus we are aware that farm employment has decreased both actually and relatively during a time span when total state population increased by 3.5 million.

Industry and commerce labor demands have absorbed many displaced farm workers and have also attracted many permanent farm employees to urban areas where jobs are more plentiful and wages higher. In general these employees were at least semi-skilled and could be trained on the job or prepare themselves by participating in government training programs. However, we now find the rate of displacement accelerating and that the displaced workers are not only unskilled but in most cases functionally illiterate. This is the migrant most difficult to help (we have no "instant" education or skills) and yet the most in need of help. Thus we are involved in the anomalous situation of a continued tight labor market and a large underemployed labor surplus.

Texas Agricultural Zones

6—High Rolling Plains
7—Northern Panhandle
8—Cross Timbers
9—Blacklands

10—Central Texas
11—East Texas
12—Llano-Coastal
13—Upper Coastal
14—Pine Belt



1—Lower Rio Grande Valley
2—Coastal Bend
3—Rio Grande Plains
4—Trans-Pecos
5—Edwards Plateau

MECHANIZATION IN AGRICULTURE

There is no quick and ready definition or description of mechanization in agriculture, since in a broad general sense it would have to include every mechanical work saving device used in the production, transportation and handling of farm produce. This could range from a hand cultivator to a tractor drawn, multi-disc plow; from a utility farm Jeep to a large tonnage transport truck; from a moving belt sorting table to huge grain combines or heavy duty potato diggers. However, recognizing the need for some restriction in treating a subject of such magnitude, we will herein deal only with the mechanization of the harvesting phase. And since everyone is well acquainted with the harvesting machinery used for grain and fiber, we will further restrict ourselves to the equipment and techniques used for harvesting vegetables, fruits and nuts.

There has been such an abundance of work and research done in this field during the last two decades that, even with the restrictions we have imposed, a sizeable book could be written on the subject and still leave much untold. If we are to study our subject in depth we must consider more than just a noisy machine that actually devours whole tomato plants or another machine that literally shakes fruit from a tree; we must also consider the many interrelated causes and effects produced by such mechanical action. This means probing the economics of substituting capital for labor, projecting the extent and severity of manpower displacement, researching the limitations of horticultural development and many other matters. And somewhere along the line, before the point of no return is reached, it must be determined whether mechanical harvesting as it is presently evolving will ultimately be a blessing or a curse, a boon or a bust.

Without a doubt agricultural mechanization had its beginning about 10 –15,000 B.C. when the food gathering Paleolithic man creature entered the Neolithic food producing age by sharpening a stick and poking it into the ground in order to plant a seed. This was the first agricultural aid. With the beginning of the Iron Age, about 1,000 B.C., metals as more durable materials came into use. The domestication of animals, the wheel, the crude plow, the sickle and flail, the water wheel for irrigation and milling were all painstaking and progressive steps pointing in the direction of the very complex and sophisticated equipment in use today. Then as now the motivation was the same, the desire to accomplish an agricultural task more quickly and easily while at the same time making a smaller human work investment.

As we move toward modern times we find that agricultural innovation had not been keeping pace with the industrial revolution. It wasn't until well into the twentieth century when an awareness of increasing demands on our farmers prompted a new tide of inventions and studies culminating in what is now called a "technology revolution" in agriculture. The acceleration of this revolution can be appreciated when one realizes that in 1900 one person on a farm produced enough food for seven people and that now the figure is forty-two persons, a sevenfold increase. At the same time this expanding technology, in its unswerving

pursuit of progress, was unwittingly helping to create a phenomenon which is today convulsing the entire American social structure. This is manifest in that during the last decade we have lost 1.2 million farms and a parallel decrease of 2.8 million farm workers. Figures from our recent Census show that farm population is down from 15 to 10 million since 1960 so that farm population is now only five percent of the total population. At the turn of the century our population was more rural than urban and more workers were employed in food related production then in providing goods and services; these situations are now reversed.

Mechanization, as we will see, is far more complex in its many ramifications than merely inventing and building a harvesting machine. Just as harvesting, handling, marketing and processing must function as a system; so in like manner economics, mechanics, horticulture, manpower and social impact must all be coordinated if we are to benefit from harvest mechanization in the total sense.

A. ECONOMICS:

Before design and engineering talents are assembled in an attempt to convert an idea into a functioning reality the idea must pass the test of practical feasibility. In determining feasibility one must consider not only all of the factors mentioned in the previous paragraph but many others. However, it is immediately accepted that the principal factor, and the one to be decided first, is economic. If all of the other factors contributing to a final decision are positive but no economic advantage can be assured it is most likely the idea will be abandoned since economic incentive is the cornerstone of the project's structure.

In attempting to make a decision on economic feasibility detailed information and data must be compiled and should include the following variables:

1) Present hand labor cost per harvest unit or per acre.
2) Total-harvest-cost to produce-price ratio.
3) Research and development costs and potential market.
4) Machine cost to buyer, operational overhead and depreciation.
5) Expected number of workers machine will replace.
6) Potential increase in productivity of remaining labor.
7) Volume and Unit value of crop (i.e., potato compared to asparagus).
8) Principal market (present and future) fresh or process.
9) Yield losses due to harvesting over- and underripe produce.
10) Losses from bruise damage and rejects.
11) Cost of future refinements and danger of quick obsolescense.
12) Potential of import competition on similar process products.

In many instances the problem of prohibitive development costs has been solved by utilizing university and foundation facilities. University Extension Services can often obtain grants for research, development and testing and later license manufacturing rights to machinery builders. This is of utmost importance with machines of limited sales potential wherein high development costs would have to be absorbed by a small number of buyers thus raising the unit price inordinately.

Until now we have been treating with the dollars-and-cents feasibility of machinery construction for the manufacturer and for the grower. Can the manufacturer realize a profit and can the grower make a savings? Before risking an answer to this compound economic question a profound attempt must be made to analyze and project the all important role of the produce consuming public in whose hands the destiny of any project lies. Despite all indicators and variables being affirmative, if mechanization results in any undesirable changes in taste or appearance of the produce the public just might resist. This resistance is an absolute surety if the public's purse is adversely affected. Public acceptance is as necessary for success in food sales as in any other commodity. Therefore it is imperative that the engineer and the horticultural technologist share their expertise to give the public what it wants in the form it wants it and still assure a profit. There is no margin for mistakes; they are too costly.

B. HORTICULTURAL TECHNOLOGY:

Another very important indeterminant bearing on the feasibility of mechanically harvesting a crop is the crop itself. If a machine can be designed to accommodate to the crop will the crop necessarily accommodate to the machine; and if not, can the crop be modified to do so? Here we refer not only to physical accommodation but more importantly to economic accommodation. This involves the amount of saleable yield, its value and the cost to produce it. Attention was given to production costs in the economic studies and the dollar value per unit of produce is a variable determined only in the market place, so yield is the variable that we will now discuss in this section. Biological studies can be very influential in modifying plants and trees or developing new ones that result in superior saleable yields; not just gross yield but net yield with prime market acceptance.

Solutions to the problems that are frequently faced by the horticulturist and the biologist involve genetics in variety development and emphasis breeding, as well as cultural practices. Examples of breeding to emphasize certain characteristics are: when a crop with low impact tolerance has excessive bruise rejects; when lack of size uniformity increases sorting costs and rejects; to strive for maturity control thus reducing under- and overripe losses and permitting the practice of interval planting. Breeding is done for uniform plant size and height, also for the minimum foliage to reduce handling excess trash; both of these factors are important for the engineers. Breeding is used to increase strength and hardiness against weeds and predators who compete for the moisture and nutrients in the soil. This encompasses a multiplicity of considerations and may require entirely new varieties suitable for machine harvesting the development of which takes a good measure of knowledge, money and time (i.e., the Hanna tomato released in California in 1962 took nineteen years to perfect and the Leeper "Chico" tomato planted in volume the same year in the Lower Valley required ten years of experimentation).

Just as cars must undergo grueling road testing before final approval, new plant varieties are subjected to exhaustive field testing before being accepted. This is where the agronomist and the agrobiologist join the team in an attempt to establish optimum cultural practices. Topics of interest to these professionals include seedbed preparation, seed germination, emergence time, seedlings and transplants, row spacing and precision planting,

nutrition and moisture requirements, plant population and plant yield, etc. Work continues to progress in the "no-row" concept where certain vegetables are being planted and grown like a grain crop and harvested in a similar manner. The eliminations of rows would tend to prevent weed propagation while considerably increasing per acre yield. Experimentation continues, in theory and practice, concerned with the radical idea of tilling and seeding in the fall (rather than spring or early summer) using germination controlled seeds that activate next spring when certain natural conditions are met.

Thus we become aware of the vital role played in mechanization by the horticultural scientists and the almost endless possibilities there are for further mutations and development. Thus we also realize that mechanization consists of much more than just an idea, a drawing board and a machine shop.

C. MECHANICAL TECHNOLOGY:

The mechanics of mechanization is undoubtedly most easily understood by the public because of its visibility and because people more and more relate to machinery. Machines in a variety of shapes and sizes designed to perform a myriad of tasks are a part of the daily scene, a constant and tangible reminder of our own ingenuity. We are no longer amazed at what machines can do because of our irrepressible assumption that "there must be a machine to do it." There is even a specialized branch of engineering whose sole purpose is to isolate areas where a "mechanical device" might reduce man's work investment and produce uniformity without the need for mortal decisions. How can anyone, who has studied in detail the "inventions" of the late Rube Goldberg, harbor the slightest doubt that there is such a thing as "mechanical limitation"?

It can be assumed therefore, providing that neither Economics or Horticultural Technology frown on the proposal, that no restrictions other than mechanical ingenuity should prevent the production of the required harvesting machine with the desired performance characteristics. This assumption, although self satisfying, lacks reliability in spite of our well earned reputation for engineering prowess and originality. It is said that success begets success but in the realm of mechanical harvesters the cliche does not hold up under the weight of facts. For every successful harvester there are hundreds of well studied projects of universities and companies stuffed into dead files from coast to coast. In addition to the abandoned projects that progress no further than the drawing board, we must add those which passed the development and manufacturing stages but never enjoyed practical acceptance in the field because of performance deficiencies, frequent mechanical failure, high produce destruction, etc. It would be interesting to know the overall success/failure ratio of original harvester ideas.

Waving aside the foregoing which indicates that there are more shipwrecks than ships, we would like to present, in the form of a brief treatment, individual vegetable and fruit crops and machines that seem to have "caught on" and appear to have the best prospects for continued success both economically and technically.

Vegetables:

Technology in vegetable harvesting moves forward much faster than with fruits due in part to inherent differences in the crop producing agent (bushes, ground vines and tubers as compared to trees, etc.) and the fact that volumewise and valuewise vegetables are far more important to the consumer and to agrieconomy than fruits and nuts.

TOMATOES represent more than 16% of the country's total vegetable production, second only to potatoes, and are grown commercially in thirty-one states. As the fresh market demand continues to soften the bulk of tomatoes now being planted is of varieties destined for processing. The state of California accounts for over 75% of the nation's total tonnage and as 95% of the California crop is machine harvested it follows that at least 70% of the national crop no longer requires hand pickers. The manpower impact is quite obvious when one considers that as we entered the 60's tomatoes (in a list headed by tobacco) was the fourth largest labor consuming crop in the nation.

Of the some 1700 tomato harvesters in use today over 1500 are in California which indicates that the rest of the producing states are either not interested or are having trouble developing varieties with growth and physical characteristics lending themselves to machine harvesting. An area with high mechanical potential is the Lower Rio Grande Valley because of the adaptability of the sturdy Chico tomato breed. Tomato interests are sufficiently aroused by the Valley development that the National Tomato Breeders Roundtable is to be held in that area during early 1971.

The harvesters in use today are very effective, but there are two major areas where improvement is sought. These are: 1) the harvested product includes too much dirt and foreign material (trash), and, 2) excessive damage to fruit during harvesting and handling operations. Both of these areas of concern bear directly on quality and yield and thus on profits. At present, to prevent unacceptable fruit going to the cannery, experimental procedures are being tried which involve a central sorting system located in the field. In this manner all fruit, unsorted, is truck or tractor delivered to a central shedlike depot where it is manually sorted before proceeding to the packing plant. It is doubtful if either system will ever dominate but refinements and improvements are bound to come and the day will also come when even fresh market tomatoes will be machine harvested.

SNAP BEANS and PEAS are two vine vegetables which were among the very first crops to succumb almost completely to the mechanical picker. Although they were hand operated, the first pea harvesters entered U.S. fields around the mid 1880's and the basic principal has changed little over the years. Of course, new materials, structural modifications and motorization have continued to improve the efficiency and yield; the hand picked pea is fast becoming a rarity.

The history of bean harvesting parallels that of peas although the main surge toward full mechanization began to gather momentum only twenty-five years ago. The original engineering design has likewise changed little over the years and the same basic principal is

built into all models; the result is that the crop is 100% machine harvested. Here the only opportunity for improved efficiency and yield depends on improving cultural practices to increase plant density and plant yield.

The POTATO is the highest volume vegetable crop produced in the U.S. and is the main staple on the national table. Potatoes have traditionally been a high labor consuming crop from planting and pre-harvest to harvest and delivery to market. Being of high weight, low unit value and with a high labor cost ratio, is it any wonder that over the years intense effort has been directed toward mechanizing this crop? Although "digging up a potato" sounds relatively simple, facts prove to the contrary; it was not until the 50's that machines could actually harvest more than they destroyed. The two principal problem areas were underground damage and bruising. Underground damage is now minimal but bruising still accounts for about a fourth of the crop value being lost, either by selective rejection or by market value depression because of quality loss.

Looking at a potato one would consider it a pretty sturdy tuber with long storage life, but that is before its bruise history is known. Indications are that black spot, soft rot and other potato diseases are the direct result of mechanical bruising which includes tumbling and handling. There are three fundamental systems for harvesting potatoes and each tries to minimize the mistreatment of the produce. There is a machine that digs, separates and sorts in one continuous operation. There is another that digs and windrows the potatoes for later pickup. Another combination machine picks up the windrowed produce and also digs two rows simultaneously and mechanically sorts the total. The use of these machines accounts for the harvesting of almost 90% of our national crop. However, the search continues for a more "gentle" machine. One recent, and apparently successful innovation is to remove clods, stones and trash by a pneumatic lift principal using forced air from a motor driven fan.

CARROTS and ONIONS are two more underground crops whose harvesting by machine has been an accepted fact fact for a number of years. The machines used utilize the basic design of the potato harvester with modifications and adaptations to provide for topping and for differing field conditions. About the only reason why carrots are not 100% machine harvested is that the small truck farmer supplying a local market finds it uneconomical to own or rent a machine for small acreage or periodic digging. Onions, on the other hand, are not only much more delicate but require more handling through loading, storage and curing. At present, less than half of the onion harvest is mechanized.

SWEET CORN is a case similar to snap beans and peas, it is a crop that seemed to lend itself to early efforts at mechanization and by the late 40's a good portion of corn for processing was being mechanically picked. Today we can say that 100% of the cannery destined corn is mechanically harvested; employing mostly two-row tractor drawn units that replace approximately fifteen hand pickers.

Mechanical harvesting of sweet corn for the fresh market did not gain any significant acceptance until the late 50's. Prior to this time rejects had been too high due to mechanical injury to the produce in spite of the protective husks. However, when statistics showed that the one-third of the corn crop that went to market was worth half of the total crop value

and when the suitable labor supply began declining while other costs increased, it was time to renew efforts to perfect a machine for fresh market produce. This was done, and now 30% of market sweet corn is pulled by machines. There is also an in-between method for sending quality produce to market; it consists of hand pulling the corn which is then passed to a mobile packing shed where the corn is inspected, trimmed and crate packed for rapid transfer to the precooler.

LETTUCE, CABBAGE and CELERY are three crops that are often associated together as being kindred in nature and behavior, but in reality they are quite dissimilar. They do have in common a relatively high unit value and also a high harvesting cost. Relative value, for the sake of comparison, shows that one acre of lettuce has more market value than six acres of sweet corn and other figures show that labor, in the case of cabbage, accounts for 25% of the total production cost which is very high indeed. In all three crops the incentive for mechanization has been high labor cost. This is due principally to low labor productivity which can be blamed on time lost in fruit selection and time lost in trimming. Selection before cutting is not simply a visual decision but involves a physical determination as well—this a human can do better than a machine. Thus utilizing manual labor permits picking at optimum value and market acceptation and also permits overpicking as maturity is reached. In spite of some successes, we can say for the present that mechanization of these crops is in reality the use of harvesting "aids" consisting of mobile conveyers and riding platforms where a part of the crew selects and cuts while others trim and pack. This system of field trimming has the added advantage that trash can be mulched into the soil instead of creating a disposal problem at a packing shed.

Machines have been designed for lettuce to select heads on a basis of size and firmness (some by applying a selection force on the sides of the heads and others applying the force on the top) and the machine "decides" which heads to cut and which to leave. Needless to say, the inherent difficulties in machine design and performance are indeed formidable. Cabbage presents the same multiple problems with the added disadvantage that the head, being more compact and brittle, is prone to crack or shatter. Celery, on the other hand, appears to have a better mechanization potential for these reasons: 1) markets accept range of sizes, no need for selection; 2) all stalks are cut at ground level, no need for knife positioning; 3) grows to fairly uniform height and top can be used for grasping without affecting the marketable portion; 4) protection afforded by the outside petioles. Several successful celery harvesters are in operation in Florida and California.

However, for the value and cost reasons stated above plus the added fact that these crops have built in protection from their outer leaves against rough handling, design and development continues and the challenge is great. Some say that if dependable machines are not forthcoming shortly that these crops may eventually price themselves out of the consumer market. Here again the answer may lie with the horticulturist and his ability to produce plants of uniform size and uniform maturity rates permitting once-over, total crop cutting thus eliminating the costly manual selection process. In conjunction with a staggered planting program, in accord with market demand, this would guarantee that the fresh market would always have "fresh" produce.

CUCUMBERS is a crop of particular interest in that it is a ground vine with a high harvest cost to value ratio and further, that present mechanical design is a direct reversal to that used in the early machines. The Heinz Company, as early as 1945, started examining the possibility of replacing the manual picker with a mechanical device and by the beginning of the 50's several types of machines were available. All of these were "multiple" harvesters designed to lift the free ends of the vine and remove the marketable fruit thus permitting multiple over-picks during the season as the vine's productivity was supposedly unimpaired. Regardless of refinements and innovations the basic problems of the multiple harvester (plant damage, low yield, declining productivity, etc.) seemed insoluble and brought about a re-evaluation of the harvesting technique which resulted in a new look at the concept of "once-over" harvesting timed to provide optimum yield.

The strongest argument in favor of the once-over harvester was based on a fact unique to cucumbers, all sizes are useful and all sizes can be harvested at the same time. Uniform maturity is unimportant, field selection is unnecessary and size sorting from gherkin to grande can be done at the processing plant. In the last five years the performance of once-over machines has been adequately demonstrated (however, some manufacturers continue trying to improve their multiple machines). Here again credit must be given the horticulturist for developing improved high yield varieties suitable for a single harvest. If the marketable yield per plant can be increased to satisfy the economics of total machine harvesting it is entirely possible that future field work will consist only of pre-harvest activities.

This has been merely a sampling of vegetable crops where mechanization has made its mark; there are many more. It is safe to say that every known commercial vegetable crop has been considered for a mechanical harvester or a harvesting aid and work and research will continue on those crops that have met the basic feasibility criteria, you can expect some surprises. At the end of this chapter illustrations will be shown of some commercially produced harvesters.

Fruits and Nuts:

Traditionally fruit has been harvested by hand picking, generally using large crews of laborers in the orchards as ripening time for most fruits is of short duration and overripe losses should be avoided. The nature of the work in hand picking fruit tends to oppose high worker productivity as time is lost in ladder positioning, searching for fruit on low yield trees, carrying the fruit to gathering areas, etc. Hence, harvesting costs are high, ranging from 30 to 60% of total production costs (even as high as 75% for fresh market bound strawberries).

With labor costs high and predicted to go higher, coupled with decreasing labor availability and the need to improve the competitive position of the industry we have some very strong feasibility factors in favor of mechanization. For these reasons considerable effort has been expended in recent years to mechanize the fruit harvests and during the last decade more research and development progress has been made than in all previous history. However, as has been mentioned, the technology in developing fruit and nut harvesting

machinery has lagged far behind that for vegetables (see comparative table, page 14) and it seems that in all problem areas the problems involving fruit harvesting are more difficult to resolve. For the present, success has been limited mostly to tart cherries, cranberries, bush berries and certain plums (of the total 1968 fruit tonnage less than 5% was machine harvested).

It is almost impossible to generalize when considering this topic since fruit crops vary greatly, thus, as in the case of vegetables, it would seem preferable to review or discuss the present status and future possibilities of a few individual crops classified as fruits.

CHERRIES: The Tart Cherry, although subject to easy bruising, is ideally adapted to mechanical harvesting and last year almost 75% of the crop was so gathered. Being a labor intensive crop with a high relative picking cost to fruit value (often 50% or more) economy demanded urgent mechanization. The system, which has proven successful from the beginning, uses the "shake and catch" method combined with self propelled frames that convey the fruit to palletized cold water tanks for transport to the plant for processing. The trees are trained and pruned to facilitate easy attachment of the limb shakers and to remove limbs that might cause impact bruising if left in the path of the fruit falling into the catchers. Apparently the sought after goal has been reached, according to a cost study made in Michigan which produces 65% of the national crop, since it shows that one man with a machine does the work of thirty-five hand pickers and the harvesting cost has been reduced from 4 to 1.5 cents per pound. It appears that the only limitations on this method would be terrain physical factors.

Sweet Cherries are quite another thing. First of all, almost half of the produce is sold fresh (compared to the tart variety which is practically all processed) and the rest is brined or canned. The fresh market crop must be mature and with the stems attached whereas cherries for brining should not reach maturity and be without stems plus the fact that sweet cherries do not lend themselves to water handling and fluming because of excessive bruising and subsequent discoloration. Another unavoidable problem is the many sweet cherry varieties all with different characteristics and a different disposition toward mechanization. These are some of the reasons contributing to the fact that a bare 5% of this crop is mechanically harvested and the figure is not likely to increase.

CRANBERRIES, produced principally in Massachusetts and Wisconsin, are harvested by two methods—both mechanical. Dry picking uses scoops with comb-like tines which pass through the vines below the berries and strip them off. This method is preferred for the fresh market (20% of total production) because of less bruising and better keeping quality. Water picking (raking) is done in a flooded bog by stripping the berries or by knocking the berries off by using a giant "egg beater." The water acts as a transport medium and the berries are floated to gathering areas. Most water picked berries are destined for processing. Although not true mechanization, in the context we have been using, these machines nevertheless affect a considerable savings to the grower and at present harvest over 50% of the national crop.

BUSH and CANE BERRIES: The Low Bush blueberries (wild) and High Bush blueberries (cultivated) are not brothers, rather more like cousins. The wild blueberry has been raked or combed for the last century and although mechanical harvesting has been tried it has met with little success due to rough terrain, lack of plant uniformity and excessive weed growth. It is thought that if the wild blueberry industry is to remain competitive it will have to be "domesticated" which means variety development for plant uniformity and better yield as well as being cultivated and supervised. When this occurs there will be little to distinguish between low and high bush blueberries. At present however, the high bush crop is virtually all machine picked using portable vibrators and straddle-row continuous harvesters.

Cane Berries, or brambles, include blackberries, raspberries, currents, etc., and together form the major portion of the total bush produced berry crop. The urgency for mechanization is quickly understood when one realizes that each hand picked berry requires a minimum of two hand movements. The last decade has therefore seen extensive engineering advances and horticultural research with the result that 30% of the harvest is now mechanized. It is agreed that the mechanical design of these berry pickers is satisfactory; so increasing this percentage will depend on advances in plant training and development toward firmer fruits, uniform maturity and easy abscission when ripe.

APPLES, in their many varieties, are of great interest to the exponents of mechanical harvesting mainly because the national tonnage is an amazing 130 million bushels which is almost twice the national peach harvest. Heretofore all apples have been hand picked and the average harvesting cost has amounted to 40% of the total production cost, 80% of which was for picking labor. These percentages and the total tonnage presented an interesting economic challenge for mechanization which becomes even more interesting when figures show that in the last twenty years apples for fresh market (by necessity hand picked) have decreased from 70% to barely 50% of the total crop. Here again, quality and price are inversely related to bruising but since processors are less concerned with bruising, it follows that as processor consumption increases so will mechanization. Despite the interest however, a meager 3% of the crop is actually mechanically harvested which points up the need for further work on planting patterns and tree training and further investigation into "apple economics."

DECIDUOUS fruits, taken as a group, have resisted mechanization because of the same shortcoming, bruising; although some progress has been made with plums and cling peaches. The most delicate fruit of this group, the most susceptible to bruising, are PEARS. Pear bruises penetrate deeply into the fruit and the dark discoloration cannot be effectively removed even by cooking or processing, and 60% of the crop is processed by one method or another. In addition, the upright structure of the pear tree does not lend itself to shake and catch; hence present effort has been to create high yield trees planted in hedgerow fashion (tree-wall) which is resulting in increases in hand pick productivity of up to 50%. Mechanization for pears is highly unlikely.

The PEACH is the deciduous fruit of largest national tonnage and highest value, and since 40% of the crop is processed attempts at mechanization were started as early as the mid 50's. Work began on cling peaches and at first the fruit loss due to cull out and injury averaged a discouraging 30% over that of hand picking. Later, using modified prune

harvesting equipment with padded catchers and decelerator strips reduced this figure to 15%, which was still unsatisfactory. The next approach was in the direction of tree modification by pruning and removing interior branches to reduce bruising—but this reduced yield. Then in the late 60's a new tree form (a weeping branch canopy) was developed which allows a relative free fall for the fruit, but even with this partial breakthrough the economics are still not convincing as less than 5% of the crop was mechanically harvested last year. It should be stated, however, that clings present a more encouraging future for mechanization than other deciduous fruits. Freestone peaches have practically no potential for mechanization. Some deterring factors of importance are: two-thirds of the crop is fresh market bound, the fruit is very bruise prone and extended uneven ripening period requiring several over-picks.

APRICOTS, which fall into this same grouping, likewise have little mechanization potential despite it being a firm, sturdy fruit of more than expected bruise resistance. The principal problem is that apricots have an extended ripening period and this variability in fruit maturity means excessive losses due to rejected underripes if standard shake and catch procedures are used. Apricots are not a popular fresh market item (90% are processed) so if and when the uniform maturity problem is solved mechanization should advance rapidly. In the meantime only 3% of the crop is harvested by machine.

The last member of this group to be considered is the PLUM. There are three different varieties of plums grown in the U.S. and their individual characteristics require that they be treated separately. California produces almost 75% of the national plum tonnage from a French variety having a high enough sugar content to permit drying to produce prunes. Virtually the entire crop is converted into prunes and since bruising plays no role in the quality of the end product, 85% of the crop is harvested mechanically and the rest is ground pick-ups preceding the shakers. Another 15% of the total crop (also grown in California is the Japanese plum which is a tender skin, large fruit variety destined for fresh market consumption. There has been no attempt to mechanize this crop, but as in the case of pears manual picking productivity has been improved by hedgerow and tree-wall plantings which readily adapt to platform operations. The third variety, the Italian purple plum, is a northern crop representing about 10% of the national tonnage of which half is sold fresh, 30% is canned and 20% is dried. The fruit for these last two categories is usually contracted to the larger orchards by processors and is almost entirely machine harvested.

CITRUS fruits make up another family group and the one under the most relentless attack from the mechanizationists. The huge crop volume (400 million boxes a year) worth over 800 million dollars, the fact that picking labor costs consistently amount to over 80% of harvesting costs and that during the last decade the labor cost per unit of production has increased over 70%, are all good reasons why mechanizing citrus harvests has such a high priority. Florida is first in production (with 70% of the national tonnage) almost all of which is processed into juice. California, second in production, sends ¾ of its fruit to the fresh market while Texas and Arizona divided their production equally between fresh and process sales.

From the above it is understandable that most of the development work in mass removal systems is taking place in Florida. The problems involved in citrus mechanization

are the classic ones we have already discussed and with these additions: ripe fruit is difficult to "shake" off as the stems do not easily snap and yet the same action will snap off green, underripe fruit; also, being a crop grown in a temperate zone the picking season will extend to as long as eight months with budding fruit, immature and ripe fruit on the tree at the same time. Field testing continues in Florida (processors can tolerate some fruit bruising which the fresh market cannot) and the Florida Industrial Commission has just finished a three year statistical survey of the economic and manpower aspects of mechanical harvesting in citrus and concludes that no appreciable amount of mechanization will occur until after the mid-70's, and that fresh market fruit will continue to be hand picked indefinitely.

Yearly GRAPE crops in the U.S. amount to more than 3.5 million tons, 90% of which is produced in California. One-half of the California crop is crushed for wine, one-third is dried for raisins and the remainder is carefully selected for table consumption. Hand harvesting of grapes is labor intensive and slow therefore expensive, costing from $30 to $50 a ton. When this cost is added to the fact that more than 80% of the total national harvest is processed (where visual appearance and berry damage are not too important) the two considerations point to a high feasibility for mechanization. The challenge was a strong one but the conquest has not been easy, due mainly to the number of different grape varieties and the different trellising and pruning practices in vineyard management.

The second most important grape growing area is around the Great Lakes and particularly New York state, whose Agricultural Experiment Station started mechanical research in 1957. Although this was five years after California started experimenting, the New York success is far more noteworthy than that experienced on the West Coast. There are two main reasons why New York has taken the lead (even though their tonnage is less than 5% of that in California) which are: 1) most of New York's production is of one variety, Concord, of which almost all is processed, and, 2) research was based on the premise that the crop would have to adapt to the machine. Thus after ten years of horticultural pampering and cajoling the eastern grape industry has developed a uniform trellising system and high yield vines with controlled ripening zones which permits straddle type machines with a stroking mechanism to shake off and gather the grape berries. Last season 50% of the New York process grapes were mechanically harvested and California is accelerating its program toward cultural uniformity; so before long it should be able to increase its mechanically harvested tonnage. The initial economic studies in New York placed the cost-per-ton for mechanical harvesting at $20. Imagine the total savings if California could equal that figure—and imagine the worker displacement!

All commercial STRAWBERRY acreage is presently hand picked and almost 70% of the production is sent to the fresh market. Harvesting costs may account for one-half to three-fourths of total production costs which would indicate economic feasibility for mechanization but adverse factors have virtually pigeon holed all mechanical projects. Prototype stripper or comb "once-over" harvesters show a 40% loss in yield due to immature fruit and also approximately 40% of the mature fruit must be shunted to low value processing because of excessive bruising. Mechanization may adapt itself to areas with short harvest periods and more uniform maturity but in California and Florida where high yields are obtained by overpicking for several months, chances of mechanization are slim.

Since about 1950 tree NUTS are being mechanically shaken from the trees instead of using long poles to manually knock them off. Since that date development in the nut industry has consisted of improved gathering machines and techniques. This means soil preparation in the orchards, then windrowing and then mechanical pick up and trash removal. Some nut crops can be gathered without being windrowed by using a revolving drum (on the front of the tractor or vehicle) with rubber fingers which deposits the nuts on a screen where they are then separated from the clods by means of shaking and forced air. Of the principal nut crops, some sort of mechanization is involved in 75% of the harvesting.

As was true of the section on vegetables, this coverage on fruits and nuts is by no means complete but should give the reader an appreciation of what has been done and an insight of what to expect in fruit mechanization for the future.

From the following comparison table of present and projected percentages of mechanization to total harvest, we see that the potential for increased vegetable mechanization is small as well over fifty percent of the total harvest is already mechanized, however the probability of increased mechanization is foreseen as being good. On the other hand fruits have a large margin for mechanization growth but, as we have discussed, inherent problems throughout the fruit family will always prevent any substantial increase in mechanical harvesting. Exceptions to this are wine grapes, cling peaches and cherries as the horticultural techniques and the machine designs have already been established and proven for these crops.

Although we will not treat in detail on the manpower implications of mechanization until next year, the chart on the total man-hour requirements illustrates the aggregate effect of mechanization on future labor demands in both fruits and vegetables. It is interesting to note that the total labor to "produce" is projected to decrease 12% by 1975 but that the labor to "harvest" (where the effect of mechanization is felt) will decrease by 21%—and as would be expected, this decrease is noticeably more conspicuous in vegetables than in fruit.

PERCENTAGE OF VEGETABLES AND FRUITS & NUTS MACHINE HARVESTED IN 1968 AND PROJECTIONS FOR 1975

VEGETABLES	Percentage Machine Harvested 1968	1975	Percentage Machine Harvested 1968	1975	FRUITS & NUTS
All Vegetables	56	75	2	17*	All Fruits & Nuts:
Fresh	52	70			
Process	73	93	0	10	Oranges
Tomatoes	44	70	—	10	Grapefruit
Fresh	0	30			
Process	65	90	0	0	Lemons
Sweet Corn	78	93	5	42	Grapes
Fresh	30	75	—	50	Wine
Process	100	100	—	0	Table
Snap Beans	79	100	0	5	Apples
Fresh	30	100	0	0	Fresh
Process	100	100	1	10	Process
Potatoes	85	97	3	41	Peaches
			6	60	Cling
Lettuce	0	50	—	5	Others
Onions	35	70	28	75	Cherries
			50	95	Tart
Cabbage	1	50	2	50	Sweet
Carrots	95	100	0	7	Pears
Cucumbers	8	55	0	10	Strawberries
Peas	99	100	2	20	Apricots
Sweet Potatoes	70	90	5	20	Pecans

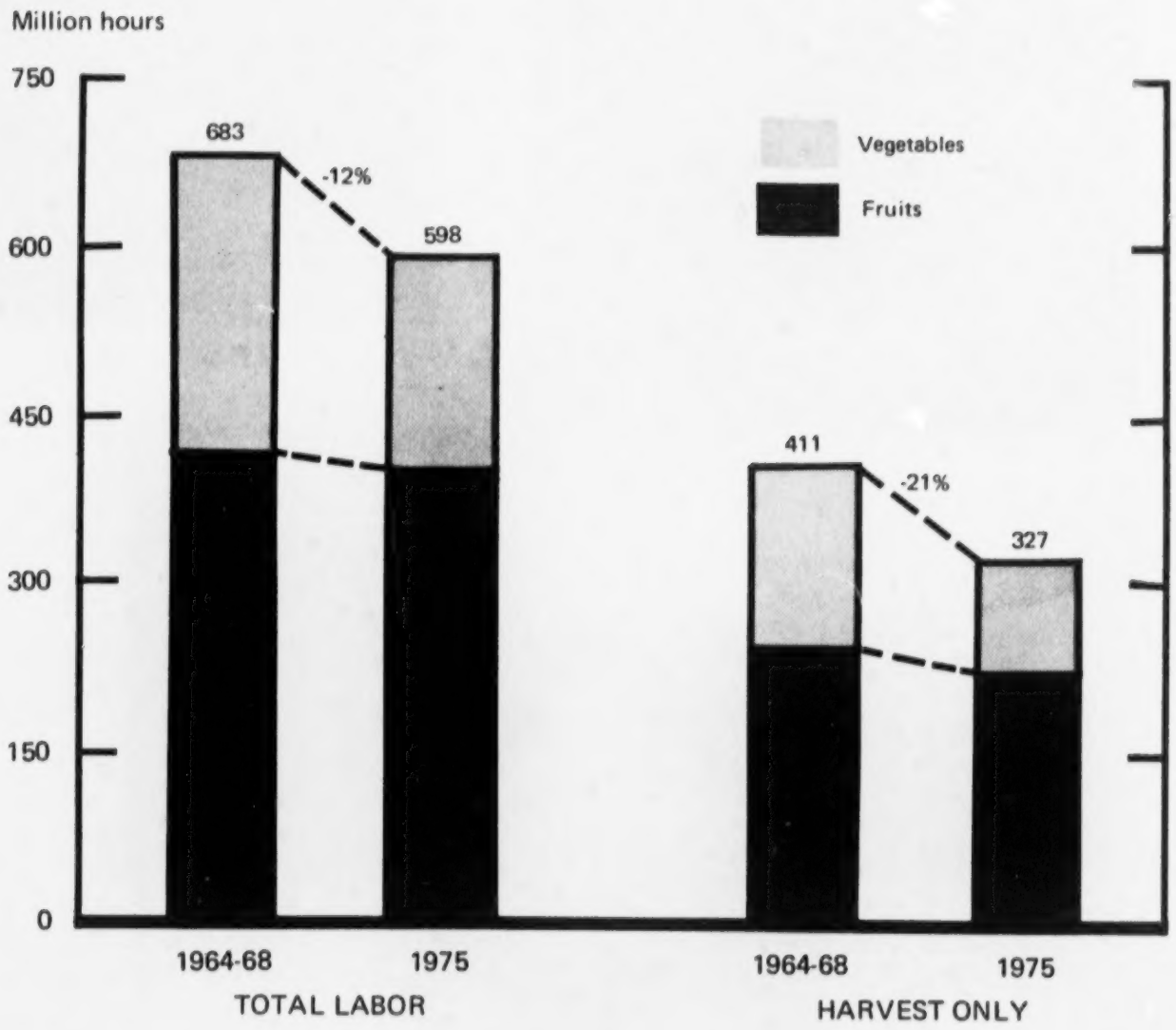
Man—Machine Ratio

From Tomatoes at 3/1
to Snap Beans at 250/1

From Pears at 2/1
to Cherries at 35/1

(*Mechanical harvesting of all fruit for the fresh market is less than .5% of the total and will no doubt remain at that figure.)

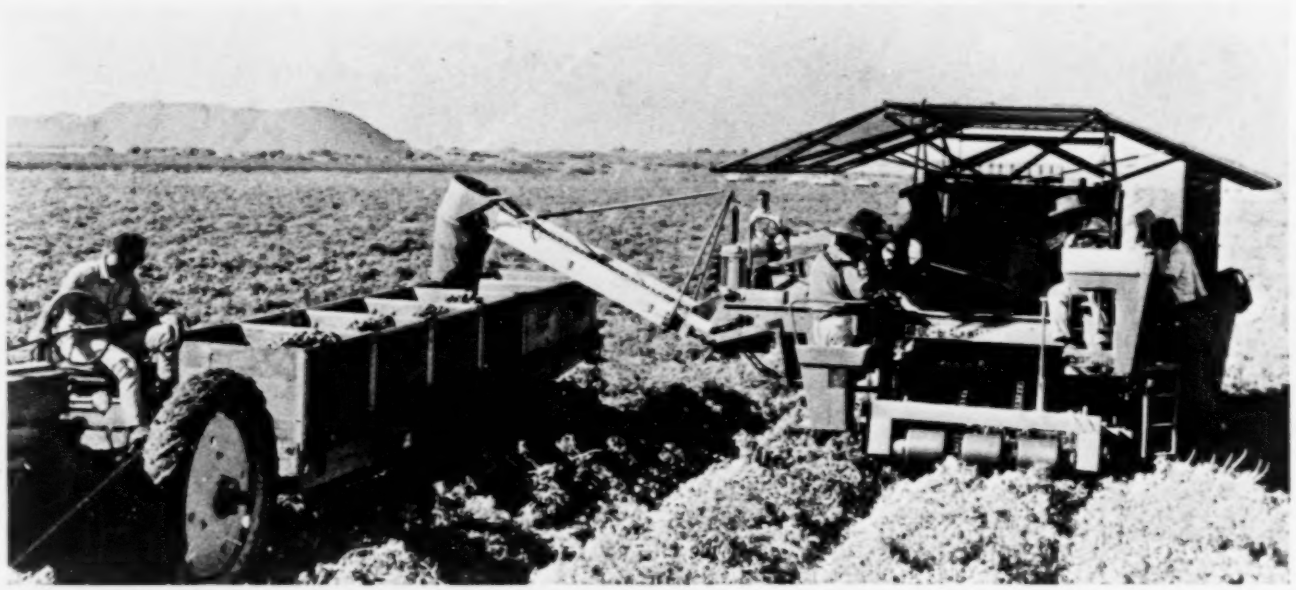
Total Man-Hours Required to Produce Fruits and Vegetables, 1964-68 Annual Averages and 1975 Projections



This multi-level personnel positioner by Blackwelder is self-propelled and can be used for rapid pruning activities and later for fruit picking. Manual effort for pickers is less and also fruit handling is less.

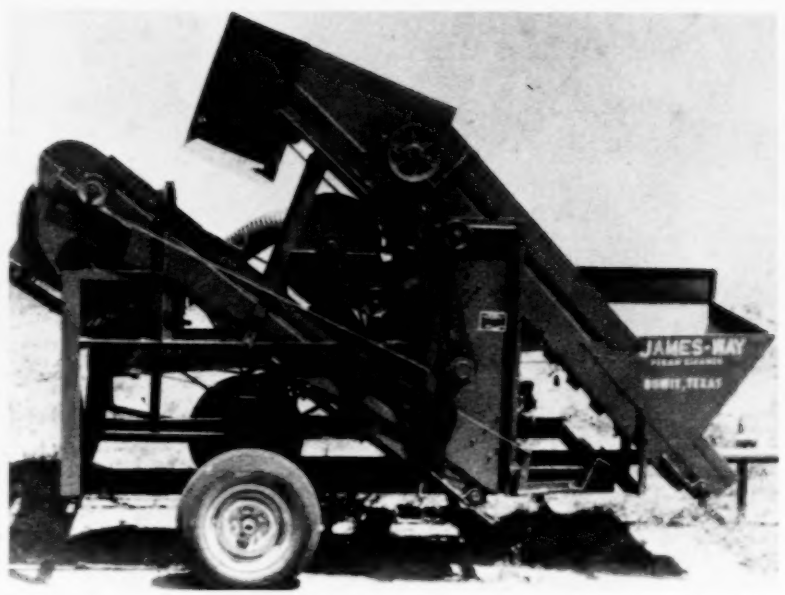
International Harvester's high drum, self-contained 2 row cotton harvester. The operator's cab is optional.

This is the world's first four-row harvester for sweet corn, manufactured by Massey-Furgeson it has a 3 ton hopper and an operating speed permitting a harvest of 18 tons of sweet corn per hour.



Tomato harvester by Blackwelder works in conjunction with bin tractor and requires 1 supervisor, 1 operator and crew of 14. Over half of the mechanical tomato pickers are of this design.

This self-propelled pecan harvester is manufactured here in Texas by Bowie Industries. Pecans are lifted to the conveyor by a rubber fingered drum. Capacity: 10,000 lbs of nuts per day.



This is a portable pecan cleaner made by Bowie Industries that can operate on electric or gasoline driven motors. Three operators can process 3,000 lbs. of clean nuts per hour.

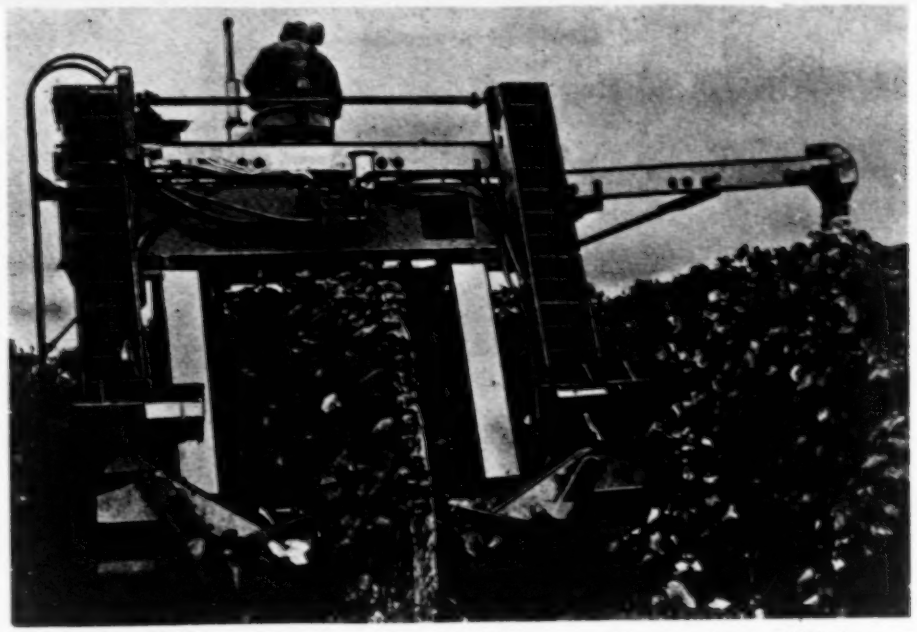
John Deer's latest self-contained all gear driven cotton picker in the process of making a field dump of over a ton of cotton.

Rear mounted electronic thinner by John Deere. Use of different sized knives permits plants to be spaced from 5 to 12" apart.

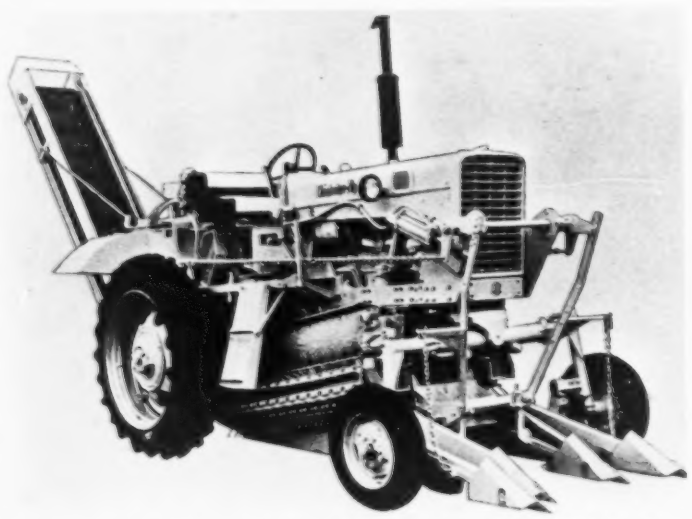
This is a once-over pickle harvester by Blackwelder with a trash and vine remover and a rear inspection belt just ahead of conveyor to dump bins.

28c

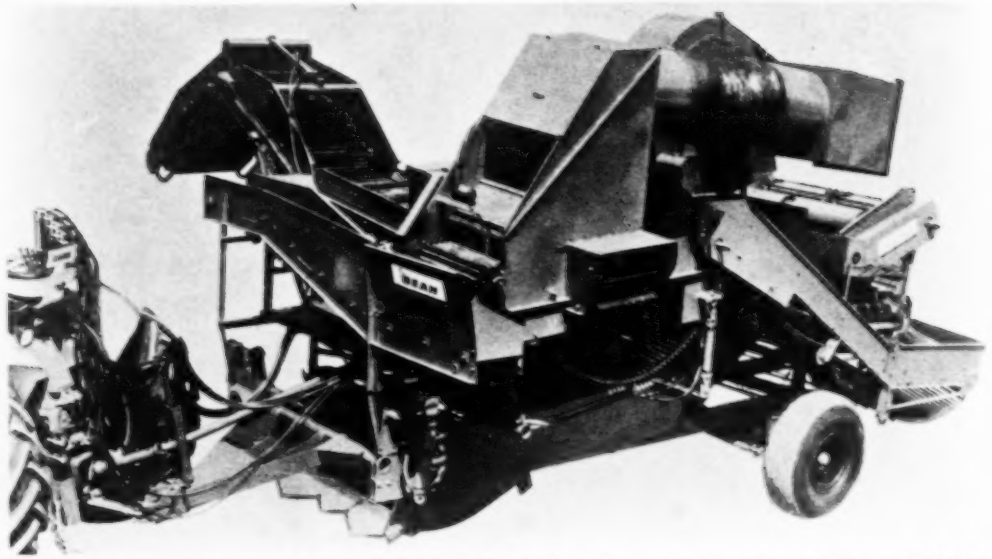
This dry corn harvester and husker by International is mounted on the farmer's tractor. Cobs and shucks out one side, shelled corn into trailing wagon.



Chisholm-Ryder Co. developed this grape harvester. Efficiency and capacity depend entirely on vineyard culture and proper trellising.



Snap and lima bean harvester by Chisholm-Ryder Co. is tractor mounted and has rear deck where produce can either be bagged or dumped into pallet boxes.



The John Beam Div. of FMC builds this two row, large potato harvester. A high volume but low velocity air lift system separates stones and clods for a cleaner potato.

ALIEN LABOR AND IMMIGRATION

A. ALIEN LABOR:

The fact that the United States actually "is" is the direct result of immigration. From the very beginning the causes for immigration were many and varied but regardless of the motivating cause, a consideration of work and employment invariably played an important role in the emigrant's decision to come to the New World. America's growth pattern, once established, required workers in increasing numbers to labor in the fields, work the mines and industry and to build railroads. This may have been the birth of the labor recruiter, the selling of job opportunities for a profit. So it was that over one hundred years ago labor consumers and recruiters, using advertising and various other inducements, began bringing unskilled peasant workers from Eastern Europe to our shores. Although it is recognized that many aliens came over of their own volition the great mass were contract workers bound by agreements that had to be kept. It soon became evident to the dealers in alien workers that by over recruiting they could cause a glut in the labor market and the resulting competition for the existing jobs could force wages down which in turn resulted in more profit for the labor consumer. It also became evident to labor exploiters that Asia was an unlimited source for even cheaper labor that could always be kept in subjugation by the threat of contract cancellation.

By the late 1800's the traffic in Asian contract workers had become so intense that three-fourths of the labor in U.S. fields was being done by Chinese. The public alarm over the exploitation and the fact that the practice was getting out of hand, caused the passage of the Chinese Exclusion Act in 1882. This was followed shortly by the enactment in 1885 of the first statutory restriction on the bringing in of foreign labor and it was called the Alien Contract Labor Law. From that time until this our government has maintained a continuous control over labor imports.

It continued to be unlawful to introduce contract labor into the United States until the pronouncement of the Labor Act of 1917 which contained provisos under which contract workers and other inadmissible aliens could be admitted on a temporary basis at the discretion of the Commissioner of Immigration and Naturalization. Also, this Act of 1917, for the first time, delineated the procedures for the importation of skilled and professional workers. The next legislative act effecting alien workers was passed in April of 1943 in an effort to overcome the wartime manpower shortage. This resulted in the first arrival of Mexican nationals and West Indians to this country for temporary employment in agriculture. The unskilled farm workers from Mexico were immediately known as "braceros" (from the Spanish word "brazos," meaning arms) or as "nationals" and these names still have the same connotation. Before this special legislation expired December of 1947 Mexico began to urge the U.S. to enact laws which would protect the bracero from frequent abuses and irregularities in the farm labor importation program.

In the meantime, to supply our farmers and growers with emergency field labor, our Department of Labor and the Immigration and Naturalization Service had set up recruiting stations in Mexico in agreement with the Mexican government. At the same time, responding to Mexico's insistance, President Truman appointed a commission to study the problems in the bracero program. The joint efforts of this Commission and interaction with the Mexican government culminated in the enactment of Public Law—78 (Bracero Act) in the month of July of 1951. This Bracero Program which controlled wages, working conditions and transportation for the Mexican nationals who came across the border to work in our fields, was to endure fourteen years. However, halfway through this period, when the average yearly import of braceros was over 400,000, the entries from Mexico began a steady decline (see Table I) and when Congress failed to renew the Act in December of 1964, it officially expired. It must be said, however, that despite the lack of a law or agreement Mexicans continued to be admitted for temporary field work empowered by sections 101 and 214 of the Immigration and Nationality Act of 1952 and Public Law 414 (MacCarran-Walter Act 1952).

Table I

Foreign Workers Admitted for Temporary Employment in U.S. Agriculture
By Year and Nationality

Year	Total	Mexican	B.W.I's.	Canadians	Oriental
1948	44,916	35,345	3,671	5,900	
1951	203,640	192,000	9,040	2,600	
1954	320,737	309,033	4,704	7,000	
1957	452,205	436,049	8,171	7,300	685
1960	334,729	315,846	9,810	8,200	863
1963	209,218	186,865	12,930	8,500	923
1964	200,022	177,736	14,361	7,900	25
1965	35,871	20,284	10,917	4,670	0
1966	23,524	8,647	11,194	3,683	0
1968	13,323	0	10,723	2,600	0
1969	15,830	0	13,530	2,300	0

Farm Labor Development, U.S. Department of Labor

Use was made of the provisions in the immigration laws stated above which permitted a three year phase out of the bracero program and there have been no entries of non-immigrants from Mexico since 1968. Although having little effect on Texas or her migrants it should be mentioned that during this same period the other two sources of alien field workers (Canada and the British West Indies) remained essentially the same except for a low year in 1968.

Use of foreign contract workers remained at a low level in 1970, reporting but a small increase from the previous year. The slight increase in employment occurred during the sugarcane harvest in Florida where, for the third year in a row, the cane cutters outnumbered all other foreign workers in all categories. In addition to planting and harvesting sugarcane, the B.W.I.'s worked in the Valencia orange harvest in Florida during May and June for the second consecutive year and also picked apples in New England and the Virginias. The Canadians on the other hand, whose traditional work area is New England, were fewer in number last year (15% of the total) but they contributed the same share of work as the year before—this is shown in the second half of Table II. As far as future alien labor needs are concerned it is predicted that they will remain steady at about 44,000 man-months a year which is quite a change from the 1,750,000 man-months in 1959 at the peak of the bracero program.

Table II

Estimated Man-Months of Employment of Foreign Contract Workers
by Nationality, United States

Man-months of foreign worker employment

Year	Total	Mexicans	B.W.I.s	Canadians	Japanese Filipinos
			Thousands of man-months		
1953	960.4	847.8	109.9	2.7	.0
1957	1,733.2	1,587.9	126.4	9.2	9.9
1961	1,278.4	1,148.9	102.6	8.4	18.4
1965	103.6	26.5	72.0	5.1	.0
1966	59.8	12.3	44.0	3.6	.0
1967	57.7	7.1	46.7	3.8	.0
1968	40.7	.0	39.1	1.6	.0
1969	44.0	.0	42.2	1.8	.0

For the purpose of comparison we summarize the figures for 1968 and 1969.

Alien Workers in the United States

	1968		1969	
Individuals	13,323		15,830	
Man-Months of Work	40,700		44,000	
Man-Month/worker	3.1		2.8	
	B.W.I.'s	Can.	B.W.I.'s	Can.
Individuals	80%	20%	85%	15%
Man-Months	96%	4%	96%	4%

B. IMMIGRATION:

In dealing with alien labor in section "A" it was inferred that the United States is a nation of immigrants and statistics abound that show the effect of the different immigration trends on our national make-up. Likewise statistics dramatically prove that since the time of our first national census in 1790, when three and a quarter million people were counted, immigration has undergone a snowballing effect. During the early years of our Republic immigration was encouraged and newcomers who would help expand the country were always welcome despite George Washington's recommendation that unrestricted immigration be viewed with caution. At the time there were no Federal dispositions concerning the admission of aliens to this country and none were forthcoming for over one hundred years after the Declaration of Independence, except in 1808 when the importation of slaves was prohibited.

From 1820, when immigration records were first required by statute, to 1880 there were 10 million aliens who entered the U.S. as permanent residents. During a much briefer period, 1880 to 1920, the figure for persons admitted was 23 million. This indicates that the curve on the immigration graph had steepened alarmingly and immediate regulations and controls were imperative. Temporary legislation was enacted in 1921 and followed by an Act passed in May of 1924 which established a permanent system for quota allocation on aliens wishing to immigrate; however, admissions from independent countries of the Western Hemisphere were left unrestricted except for the visa requirement. This exemption from national quotas continued even after the codified Immigration and Nationality Act of 1952 went into effect.

The pro's and con's concerning national quotas for Western Hemisphere countries echoed through the Halls of Congress for another decade until October of 1965 when an amendment to the Act was passed placing a numerical ceiling of 120,000 yearly on the whole hemisphere but making no stipulations in reference to individual countries except to state that no country could have more than 40,000 per year.

In addition to the establishment of the stated quota, the responsibilities of the Secretary of Labor were restated under the amendment requiring him to make the following determinations before he can "certify" that the prospective immigrant worker is deserving of a permanent visa: 1) that there are not sufficient workers available for this work who are "able, willing and qualified," and 2) that the employment of such aliens will not "adversely affect" the wages and working conditions of United States workers similarly employed. All occupations that the Department of Labor has for consideration are divided into three principal "schedules" or occupational groups and categorized as follows:

> Schedule A — Professional fields in short supply in the U.S. and which are certified in advance (physicians, engineers, chemists, etc.). No job offer or individual review by the Department of Labor is required.
>
> Schedule B — Low skilled occupations where a U.S. labor supply exists (busboys, farm workers, cook's helpers, janitors, etc.). It is extremely rare that applicants are issued a certification.

> Schedule C — Professionals not in Schedule A and semiprofessional and skilled which are generally in short supply (chefs, practical nurses, arc welders, machinists, draftsmen, etc.). No job offer is required BUT the Department of Labor will review each individual case before granting certification.

So thus it is that the prospective immigrant must first make application in person to the Department of State (U.S. Consular Service) and if the applicant meets the criteria his papers are sent to the Department of Justice (Immigration and Naturalization Service) for a routine search to determine if there is a previous immigration record. If all goes well, the application then continues to the Department of Labor (Regional Office of Certification) and if certified it is returned to the original consular office where final processing may take from six months to a year, depending on the case backlog. In recent months processing seems to have speeded up as case loads are diminishing. This is explained by the fact that fewer Schedule B applications are being made as most unskilled workers know before hand that they just will not receive the necessary certification. Why waste staff time going through State and Justice and then getting struck out at Labor?

Although this amendment did not become effective until FY—1968 it should interest the reader to note that no abrupt change has occurred in the immigration pattern of our hemisphere neighbors, except in 1968. This unusually large Caribbean figure will be explained in a subsequent note.

TABLE III

Immigrants Admitted from the Western Hemisphere, 1964-69

Year Ending June 30	Total	Canada	Mexico	Central America	Caribbean	South America
1964	143,603	38,074	32,967	11,500	29,960	31,102
1965	157,264	38,327	37,969	12,423	37,583	30,962
1966	152,819	28,358	45,163	9,658	43,804	25,836
1967	156,312	23,442	42,371	8,709	65,273	16,517
1968	249,814	27,662	43,563	10,862	145,751*	21,976
1969	156,220	18,582	44,623	9,692	59,395	23,928

*Since the Cuban revolution somewhat over a decade ago, the United States has played host to many thousands of Cubans seeking refuge. These refugees were "paroled" into this country, which meant that they could stay here but they had no recognized immigration status. The majority of the Cubans appeared to be in no hurry to apply officially for immigration status (nor was Uncle Sam prodding them) as most of them hoped and confidently expected that they would soon be returning to their island home.

As the years passed this hope faded. The Cuban children were getting used to our society and adopting American ways. At the same time the parents began expressing the desire to earn their own way by using their own talents and not have to depend on outside help. However, in order to take a job or exercise a profession they often found that they needed to be either permanent residents or citizens of the United States—as parolees they could not be either.

Thus it was that the Congress, recognizing the situation and seeing the need for the refugees to become self-sufficient, enacted Public Law 89—732 which became effective November 2, 1966 making it possible for qualified Cubans to become permanent residents. By the end of FY—1967 the I&NS had received 41,000 applications and had made 25,700 adjudications. For FY—1968 the service received 82,500 applications and that year 95,700 were adjudicated, which, along with the normal case load accounts for the abnormally high figure for the year as shown in Table III. In 1969 applications were down to 23,450 and of these only 7,300 were adjudicated so it would appear that those who wished to get their long pending immigration status regulated did so in this two year period and the Cuban situation is again almost normal.

Again excepting 1968, it is interesting to note the shift in the percent of total for the three principal immigration areas in the hemisphere for the first and last years of Table III.

	Canada	Mexico	Caribbean	Total
1964	27%	23%	21%	71%
1969	12%	29%	38%	79%

Thus we see that Mexico and the Caribbean have taken up the slack from Canada as well as decreases in Central and South American admissions. The observation should be made that the notable increases in Mexico and Caribbean immigrants receiving permanent visas are almost entirely in the occupation of live-in domestic servant; over 75% of the working immigrants from these areas were admitted for this type of work. This is the result of putting into function the Secretary of Labor's first prerequisite of "able and willing" (see page 4) since it appears that not enough citizens are "willing" to be household servants doing menial work and earning little.

When it is stated that each year the total of worldwide legal immigrants entering the United States is over 350,000 (45% from the Western Hemisphere) is is more than a little startling. Who are these people? How are they to be accommodated? What work will they do? Fear that they might displace some of us is hard to dispel. However, despite the frighteningly large figure the effect of these entries has in reality been less than would be expected because more than half of them are "housewives, children and others with no occupation." The number and percentage of immigrants entering different occupational groups is shown in Table IV (on the opposite page) which also permits a comparison of a five year average with the year 1969. It is readily apparent that there is no significant change, percentagewise, in the basic make-up of the immigrant influx from year to year.

Table IV

Immigrants A[illegible]mitted and Major Occupation Group, Worldwide
Fiscal Years 1965-1969

	Total 5 Years	%	Total 1969	%
MAJOR OCCUPATION GROUP:				
Professional, Technical & kindred	189,214	10.5	39,980	11.1
Farmers and Farm Managers	14,490	.8	3,690	1.0
Managers, Officials and Owners	36,829	2.1	5,556	1.5
Clerical, Sales & kindred	119,020	6.6	17,692	5.0
Craftsmen, Foremen	108,570	6.1	26,678	7.5
Operative & kindred	88,512	5.0	16,588	4.6
Private Household Workers	79,911	4.5	16,822	4.7
Other Service Workers	60,988	3.4	10,461	2.9
Farm Laborers and Foremen	23,368	1.3	5,224	1.5
Laborers, except farm and mine	55,951	3.1	15,062	3.6
Housewives, Children and others with no occupation	953,247	53.0	190,684	53.2
Unknown or not reported	64,636	3.6	12,142	3.4
	1,794,736	100.0	358,579	100.0

U.S.I.&N.S.

Relating immigration to Texas, the I&NS records show that the yearly average of immigrants admitted to Texas over the last decade is 15,300 (75% of which come in from Mexico) which amounts to five percent of the national total and places the state sixth in a list headed by New York. Of these, roughly 2,500 are certified within the limits of Schedules "A" and "C" and the remainder is made up of accompanying or joining family and "domestics." Regarding Mexicans, the advise from the I&NS is that no certifications are being granted under Schedule "B" (except for servants) and that no longer are unskilled farm worker applications being processed.

C. COMMUTERS:

In former reports we have written at length on commuters, their origin and status, and also on some of the effects of the commuter system on border economics and work balance. At this time we will present a brief review, some additional statistics and a few comments on what is being said and done. A "commuter" is just what the word implies; a person living in a contiguous country who commutes to his place of employment in the U.S. This can be a matter of daily entries or intermittant crossings as there are no regulations concerning the type of work performed or whether or not it must be continuous. Like all immigrants, the commuter must have applied for an immigrant visa in accord with the regulations of the Immigration and Nationality Act as we discussed in the previous section. When the alien

registration receipt card, Form I—151, is issued the applicant has been lawfully accorded the privilege of permanent residence in the United States and becomes a "green carder," referring to the color of the original I—151 cards. Although the green carder, by law, is given the right of residence anywhere in our country he is not obligated to become a resident if he does not choose to; thus the creation of the alien commuter. This same freedom of choice created our citizen commuters as well.

The Alien Address Regulation requires all aliens to register during the month of January of each year (last year 3.5 million green carders registered) and the records show that over a million are from our common border neighbors. There were 702,000 Mexican and 382,000 Canadians and of the Mexicans 80% are concentrated in two states, California (369,600) and Texas (199,000). The Canadian figure shows a slight decrease from the previous year but the Mexican total, despite the labor certification requirement, is a 33,000 increase over two years ago. These new alien entries from Mexico however, are principally from the "immediate relatives" category and are to be considered as joining with family.

As stated, green carders are allowed to live where they wish and work at whatever they care to, but if they choose to "live over there and work over here" they automatically take on commuter status. An alien is entitled to commuter status if he has a permanent and stable job and he is deemed to have abandoned this status if he is out of work for more than six months. However, the "permanent and stable" requirement is seldom exercised, in order to accommodate agricultural workers whose employment by nature is seasonal and intermittant. This is precisely the unskilled worker group that is of greatest concern to Texas and her border areas.

As there is no average or typical green carder there is, likewise, no average or typical commuter. Some of them work at menial tasks, others have foreman or administrative jobs, while still others own their own businesses; however, the one endeavor on the Mexican border that involves more commuters than any other (42%) is unskilled farm work. These agricultural commuters are in direct competition with our border field workers and with our migrants when they return to home base and seek seasonal work. Of equal importance with job competition and depressed wages is the fact that this particular group of commuters makes no contribution to this country's economy or the maintenance of its services and guarantees except small income tax and Social Security payments, IF they are withheld by their employers. This situation, which is held by many as basically unfair, has recently intensified public interest and scrutiny which has aroused vociferous opposition to the commuter system by organized labor, government officials and our border town residents.

To better evaluate the present day impact of the commuter program, with particular reference to Texas, perhaps we should first analyze some of the information for the entire Mexican border as furnished by the Immigration and Naturalization Service. The four principal occupational groupings are shown in Table V and it is readily apparent that Texas differs widely with the averages for the entire border (i.e., 63% of California commuters are in agriculture compared to 18% in Texas) as well as between sectors of her own border. As would be expected the Lower Valley employs more commuters in farm work than any other

Table V

Commuter Workers by Occupation, U.S.-Mexico Border

	Agri.	Sales & Service	Industry	Building Trade
Complete Border	42%	33%	17%	8%
El Paso-Brownsville	18%	47%	22%	13%
Del Rio-Brownsville	24%	49%	16%	11%
Roma-Brownsville	26%	35%	27%	12%

area of the border. The citizen/alien ratio also varies widely (from a low of 13% in San Luis, Arizona to a high of 55% in Hidalgo, Texas) as is shown by the following figures of a one-day count by the I&NS on January 17, 1966 of total commuter workers residing in Mexico and entering the U.S. for work that day:

	Aliens	Citizens	% Citizens
Entire border	42,580	17,560	29.0%
Texas border	19,417	11,106	36.5%

Commuter figures, as the above, are only indicative as accurate statistical data are almost impossible to obtain because of so many variables. Being aware of this the I&NS makes no attempt to maintain statistics current, rather it takes occasional counts and spot checks to look for occupational changes and other trends. Among the things learned from these counts and checks are the following:

a) 80% of all comuters are from Mexico
b) The breakout is: 48% to Texas, 39% to California and 13% to Arizona
c) 60% of all commuters to Texas cross at El Paso
d) The ratio farm jobs/total jobs varies from a high of 93% at Yuma and 89% at Calexico to a low of 12% at El Paso and Laredo

Something else interesting that came out of the I&NS survey data was that of all of the alien commuters in agriculture crossing the Texas border, 48% of them had done migratory farm work in different areas of the U.S. the previous season and then returned to their homes in Mexico to continue the commuting routine. Add to this an undetermined number of agricultural green carders who live in Mexico's interior (thus cannot be considered commuters) and also cross over for seasonal migratory harvest work and the resulting sum means formidable job competition for our Texas resident migrants. This competition for migratory work is true not only in out of state areas, but also within Texas which then directly affects our intrastate farm workers and the situation becomes more acute as overall job opportunities in agriculture continue to decline.

From the foregoing we are aware of some of the adverse effects of the commuter system; now, what is to be done about it—if anything? It would be assumed, since we are concerned with work availability and jobs, that the Department of Labor could modify or eliminate the system but in reality the matter falls under the purview of the Department of Justice and requires congressional action to effect any changes. This being the case, the government officials who prepare legislation and sit on committees concerned with this subject have been deluged with suggestions and recommendations, among which the following are most prominent:

1) Leave the present system alone but eliminate the acquisition of new commuter status in the future. By preventing any new immigrants from joining the commuter ranks this group would then gradually decrease by attrition, job loss and decisions to establish residence in the United States.

2) Termination of the system on a fixed date which would provide adequate time lapse to permit the commuters to establish themselves and families in the U.S. and couple this with an immediate prohibition of issuance of new commuter cards. Regardless if the deadline is set 4-6 years from now, massive aid and assistance would be needed by the communities absorbing the heavy influx since it is felt that most job holding immigrants would across the border if required to do so.

3) Immediate termination of the system and let the chips fall where they may. Little serious consideration is given this suggestion as the social and economic disruptions, both personal and governmental, would be intolerable.

4) Require that all commuters who acquired their status before 1965 be reprocessed for certification, and further require that all certified card holders undergo "re"-certification periodically, say every two years. If the commuter fears the risk of re-certification he may opt to take up permanent residence in the U.S. This suggestion, although aimed at the same goal, falls between 2) and 3).

5) Set up the procedure for re-certification as in 4) but in conjunction with it devise a new "non-immigrant" permit, with its respective ID card, to be issued for a specific period and a specific type of work. This permit would be granted only in cases when there are not sufficient U.S. workers "available who are able, willing and qualified" as determined by the Department of Labor. Stipulations for permit renewal should be included. Essentially this would be a temporary work permit with no immigration tie-in.

There are many more ideas and suggestions of how to deal with this problem, and deal with it we must if the alien commuter depresses wages and takes work away from our own citizens. It is our understanding that bills are being introduced in the current Congress to modify the present commuter system. It is to be hoped that before any bill be enacted into law that full recognition be given to resultant economic and social disruptions that could occur in Mexico and Canada, as well as in the United States.

D. ILLEGAL ENTRANTS:

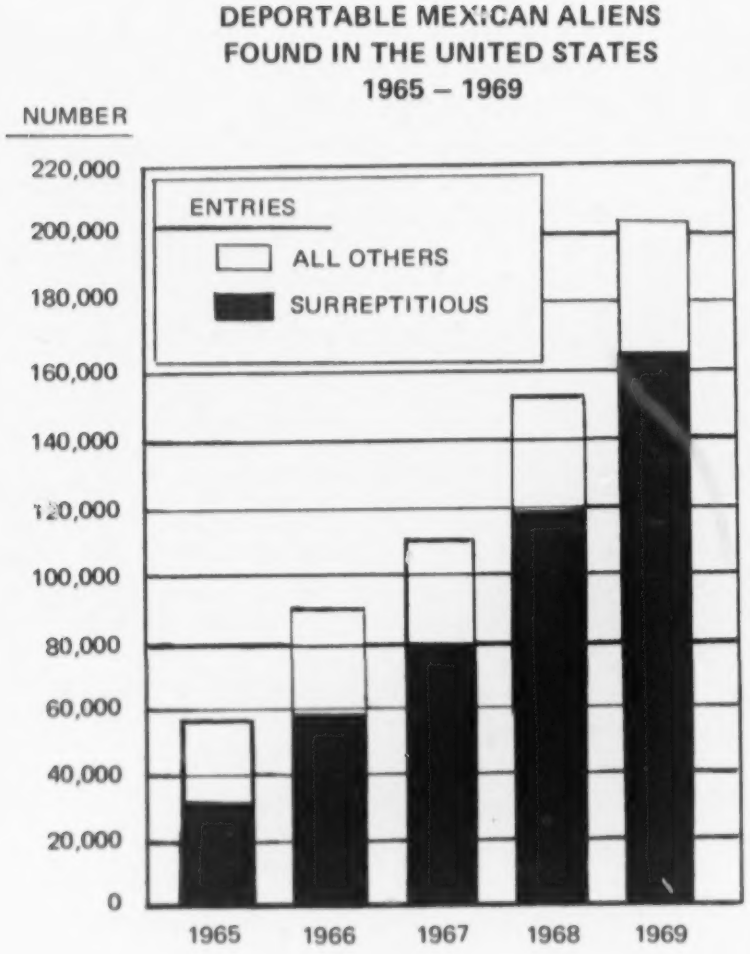
In this last section of the group we want to discuss the most pernicious of all border problems; illegal entry of Mexican nationals. Unlawful crossing of the border in search of work is the basic catalyst that produces almost all border ills. The root cause, of course, for all problems along the entire Mexican border is the great disparity in the standards of living between the two countries. The population explosion in Mexican border cities, unbelievably high unemployment, memories of bracero earnings, wages five times higher over here, and just plain economic desperation are some of the motivating stimuli that prompt the Mexican (88% male) to jump the border. The increasing economic pressure plus the fact that present regulations make it virtually impossible for the common worker to enter legally has caused the number of illegal entries to literally skyrocket in recent years.

It is not likely that the flood tide of "wetbacks" can be stemmed, much less caused to ebb, unless some drastic and costly control measures are taken immediately. There is no time to quibble over how much controls might cost, instead this is a time for action and concerted effort if we are to maintain domestic order and respect for our laws. A crash program for training additional staff and officers and the passage of enforceable laws to aid the I&NS are needed and should have high priority within the administration. And those considering how and what should be legislated should not overlook the two most important factors in this onerous problem; the alien has nothing to lose if caught, nor does the employer who hires him before he is caught.

During FY—1969, I&NS officers apprehended a total of 283,557 deportable aliens—an increase of 34% over the previous year—of which 201,636, or 72%, were Mexicans. The Mexican figure for last year was 277,000 which amounted to an incredible 90% of the world total. The following yearly totals of deportable Mexicans apprehended show with alarming clarity the trend we are facing.

1964 — 42,000
1967 — 110,000
1968 — 151,700
1969 — 201,000
1970 — 277,000

The Service designates two categories of illegal entries; "surreptitious" (wetbacks, border jumpers, smugglers, etc.) and "all others" (overstaying, entry by fraud, criminal conviction, etc.). It is interesting to note that of the world wide total of surreptitious illegal entries 97% were made by Mexicans. To better visualize what is taking place on the Mexican scene, the graph on the following pages makes it clear that while "all others" remain essentially the same the "surreptitious" shows more than a 100% increase from 1967 to 1969. This must not be permitted to continue as we will suffer irreparable damage, not just to our farm workers and not just in the border areas, but throughout the land and throughout our economic and social structure.



The Immigration and Naturalization Service has regional administrative offices throughout the nation and maintains liaison with the post office department and law enforcement groups, however, its own enforcement arm is known as Domestic Control. This control program is carried out through the coordinated action of its two divisions; the Border Patrol (in uniform) and Investigations (in plain clothes). The Border Patrol division, operating on both borders, accounts for three-fourths of the apprehensions the bulk of which is from Mexico, as the following chart indicates. Further the chart vividly shows the tremendous increase in the Patrol's work load during the past decade. A 550% increase in "repeaters" and a 600% increase in smugglers over a ten year period points up the desperateness of the situation; the alien desperately trying to get in by hook or crook and the Service desperately trying to prevent the attempt or reverse it.

Smuggling aliens into the U.S. is nothing new but what is new is that in a short period of three years it has become big business involving rank amateurs out for a fast buck as well as real pro teams using well coordinated recruiting and delivery systems that provide

ILLEGAL ALIENS LOCATED BY IMMIGRATION BORDER PATROL
Years Ended June 30, 1960-1969

	1960	1963	1966	1969
Deportable Aliens Located	28,966	38,861	79,610	172,391
Mexican Aliens	22,687	31,910	71,233	159,376
Canadian Aliens	4,645	5,176	6,254	9,074
All Others	1,634	1,775	2,123	3,940
Smugglers of Aliens Located	330	348	959	2,048
Aliens Previously Expelled	9,374	12,233	24,200	51,756

transportation, destination housing and a job guarantee. Although the risk is high for the smugglers, their members continue to increase (2,048 apprehensions in 1969 is a 69% increase over 1968 and the highest in the Patrol's history). But since there is a never ending supply of clients, fees are collected in advance, overhead is low and income is never reported to Uncle Sam smuggling continues to be a very attractive racket. As in other matters, and for the same reasons, the Mexican border is where the action is as in 1969 apprehensions amounted to 1,899, or 93% of all smugglers caught. At the same time the number of aliens caught while being smuggled was 11,784, an increase of 77% over 1968.

The Mexican government is well aware of the damage and injustice caused by illegal entrants and smugglers and has tightened its vigilante patrols and is cooperating with U.S. authorities in a coordinated program to prevent illegal border practices of all kinds. This is fine, this is the way it should be; but it is not enough. Our government must move, and move quickly, in the area of legislation to enact stringent and unequivocal laws to put a stop to border abuses. It is up to us to act because the traffic comes this way and the damage effect is to our people and our economy. And the action taken must be sufficiently drastic, sufficiently costly to the perpetrators, that they will think twice before taking the risk of being caught.

The core of the problem is, as we have said, economic (jobs for the aliens and cheap labor for the employer) so the first and most direct approach to stem this illegal influx is to dry up the job opportunities and thus remove the principal motive for entry. Two actions, of equal priority must be undertaken:

1) Amend the Immigration and Nationality Act to make employers who hire illegal entrants subject to criminal prosecution. Under present law an employer cannot even be charged with harboring although he knowingly hires illegal labor. He can only be charged if he "helps, encourages or transports illegally entering aliens."

2) Change the Social Security law to prohibit membership to others than citizens and "bonafide residents" of this country. This would make it difficult for employers to hire illegals and also prevent alien misuse of a card to which they have no legal right.

The final step, one that could take years on the diplomatic front, would be an agreement between Mexico and the United States permitting punitive measures to be taken against border violators just as would be done with other violators of each country's laws. Simple expulsion or deportation obviously is not the answer when we note that each year there are more than fifty thousand repeaters caught—and this figure will increase. Only in this manner, taking the steps as outlined, can we prevent the unscrupulous exploitation of Mexican labor and at the same time make available to our citizens and legal residents the jobs that the aliens now occupy.

These articles, few among hundreds, should illustrate our point.

Locked Truck Yields 10 Smuggled Mexicans

SANTA ANA — Ten Mexican nationals, who told police they had paid $150 each to be smuggled into the United States, were found Sunday locked inside a rented truck parked in the 300 block of East Walnut Street.

Police were called to the area about noon by a woman resident who heard pounding and yelling from inside the aluminum cargo section of the U-Haul truck. Before officers arrived, another unidentified resident unlocked the cargo door, freeing the occupants, all male adults.

Eight of the Mexicans were rounded up by police on nearby streets and turned over to immigration authorities. The other two still are being sought.

The men told a police interpreter they had been confined inside the 8 by 16-foot parked truck since late Saturday night. They said they crossed the border at Tijuana earlier in the day after paying $150 each and boarded the truck on the U.S. side of the border.

Police said none of the men appeared to have suffered any ill effects from the overnight ordeal.

A Santa Ana man was questioned Sunday by police in connection with the smuggling, but later was released.

Corpus Christi Caller-Times,
Saturday, August 1, 1970 11A

WETBACKS 'INVADING' ARIZONA

TUCSON, Ariz. (AP) — The U.S. Border Patrol station said arrests of wetbacks are flooding the department to the tune of 1,673 persons apprehended this month.

James L. Rapp, deputy chief patrol agent, said he believes the exodus from Mexico will begin to slow down in September.

Rapp said that as winter begins to set in, there will be fewer agricultural jobs available in the state, and this probably will discourage Mexican nationals from crossing the border.

"Most of these people are able-bodied, adult males who have families to support," he said. "They come here to find work, and they try to earn as much as possible to take back with them before we find them and pick them up."

He said there has been a gradual increase in the number of illegal entries during the past six years.

August 1970

Alien Arrests Jump

Drawn to Cities

By NATHAN SHERMAN

Apprehensions of Mexican aliens, living illegally in the San Antonio area have increased by more than 600 per cent over the past eight years.

Sherman

Figures released Wednesday by Louis A. Mack, head of the local U.S. Immigration and Naturalization Service investigations branch, showed 4,562 illegal entrants were nabbed here during the fiscal year ending June 30.

During a corresponding period eight years ago, less than 750 aliens were arrested by the local office.

Mack said the figures do not include apprehensions of aliens working and living on outlying farms and ranches.

J. W. Holland, veteran district director of the service, attributes the influx of illegal entrants into the cities to the alien's "new image."

"Ten years ago," Holland said, "the Mexican alien came across the border looking for a place to live. The only kind of work he knew was ranching and farming so that's where he went —to the ranches and farms of South Texas."

"But now," continued Holland, "the Mexican alien is smarter — he wants to make money and he comes to the city looking for a job in industry."

"Many businesses, in fact, depend on aliens for their existence," Holland revealed. He said he recalled several instances where employers had been temporarily forced out of business when immigration officials deported their illegal alien employes.

South Texas ranchers and farmer, who long have depended on Mexican nationals as a labor source, now must find a new labor market, Holland said.

Holland said most Mexican nationals cross the border illegally becuase "it's virtually impossible to get a visa before the jobs are filled."

The director explained if a Texas industrialist were to seek a Mexican national for employment he would have to go through the following steps:

- File an application with the Texas Employment Commission to hire the Mexican national for a specific skilled labor job.

Obtain approval of the application from the Department of Labor.

- Send the approved application to the American consul nearest the Mexican national's home.

- Wait for the consul to obtain a visa for the man.

With the backlog of applications now current in Mexico it would take at least 14 months after the Department of Labor gives its approval to gain the visa bringing the Mexcian national to the U.S. legally, Holland said.

Mexican nationals seeking unskilled labor employment in the U.S. are "just plain out of luck" as far as legal entry is concerned, Holland said.

"Unless they have a legal spouse or dependents here, they just can't get a visa for employment in an unskilled job vacancy," he said.

The only alternative then for an unskilled Mexican national seeking employment in the U.S. is to cross the border illegally.

Of the 300,000 aliens deported from the U.S. in fiscal 1970, some 277,000 were unskilled Mexican nationals.

SATURDAY, JUNE 6, 1970 Daily 10c—Sunday 25c 65th Year—Number 191

Alien Smuggling Plan Ends Tragically, 5 Die

DESCANSO, Calif. (UPI)— The $20 each of 15 Mexican men paid a Tijuana "arranger" in hope of being smuggled to Los Angeles turned out to be a down payment on death for five of them and serious injury for the others.

Their border jumping plans ended early Friday when the pickup truck in which they tried to outrun U.S. border patrolmen went out of control on a narrow mountain highway and rolled over six or seven times.

Five of the smuggled aliens were killed, two were critically injured, eight were seriously injured. Only the driver of the truck escaped, the California Highway Patrol said.

The truck was traveling about 90 miles an hour on two-lane U.S. 80 when it went out of control on the outskirts of this mountain community, skidded 400 feet and began rolling.

The driver fled into the brush, and five border patrol trackers and an airplane started a search for him. Blood on a fence indicated the driver was hurt, and it was discovered he had no shoes, said Dale Swancutt, assistant chief U.S. Border Patrol inspector.

The truck was registered to Andres Garibay Arteaga, 33, a resident alien living in Los Angeles who was prosecuted last year for alien smuggling, but the driver's identity was not known, Swancutt said.

Three of the aliens who were able to talk told officers they paid an "arranger" in the border city of Tijuana $20 each and were to pay the driver $200 each upon arrival in Los Angeles, he said.

About midnight border patrol officer Allan Gordon spotted tracks leading across the border into the United States near Jacumba, Swancutt said.

Gordon followed the track to a favored smugglers' pickup point and saw 13 of the aliens get into the open bed of the truck and two got into the cab, and he radioed his information to border Patrolman Ronald Pettingill.

The truck proceeded onto the Interstate 8 freeway at Jacumba and, with Gordon in pursuit, hit speeds estimated at 100 miles an hour, Swancutt said.

The officers said the truck hardly slowed when the freeway merged into the two-lane sharply curved U.S. 80.

The chase ended when the truck went out of control. Four men were dead at the scene.

TEXAS INTER-AGENCY TASK FORCE ON MIGRANT LABOR

It has been brought to the reader's attention on other occasions that the problems of the Texas farm worker have been of concern for many years. The original efforts in his behalf were local in nature, generally church initiated and community oriented. There have always been two basics that set the field worker apart from the rest of the community; the seasonality of agriculture (providing work for only a part of the year) and the lowest possible wage scale. Struggling against these two negative factors the field worker was never able to rise above a level of bare subsistence. Circumstances gradually began to change; local earnings were insufficient and community aid was limited, vehicles and highways improved, changes in seasons provided pre-harvest and harvest work in areas far from home and so from this beginning evolved the migrant farm worker as we know him today. However, mobility and working in new farm areas was by no means the panacea for the field worker's problems. All too often when he "arrived" either there was no work or there were too many workers, a circumstance propitious for exploitation and unfair labor practices which created suspicion and despair on the part of the worker.

The Texas Employment Commission has always had a Farm Placement division so it was only natural that this agency would be among the first to recognize the migrant's needs and began implementing practices aimed at preventing labor abuses. Soon Farm Placement became the mechanism to coordinate labor with the need for labor, thus serving both employer and worker and establishing order and regulation to a near chaotic situation. This was about twenty-five years ago.

During the decade just past the true plight of the migrant farm worker began to penetrate the mind and being of a concerned public. Soon more government programs began to emerge that were designed by government agencies, at all levels, to attempt to alleviate the problems and rectify the inequities with which these people were plagued. The migrants were tied into O.E.O. poverty assistance programs, with the Department of Labor job placement and job training, with H.E.W. and its programs concerned with health, education and welfare, with Community Action Projects, and many others. In addition to all of the official type programs there is a wide range of private and foundation sponsored programs with the same basic aim. It is understandable therefore, that with the numerous programs funded and operative, overlap and duplication would be virtually impossible to avoid. There was seldom uniformity or compatibility in definitions, guidelines or even nomenclature. In many instances competition instead of cooperation existed between different agencies and also between different private groups and organizations. All, no doubt well intentioned and with laudable goals, but few actually realizing the goals set out in their respective proposals. Until now no across-the-board coordination of programs had been attempted since, in reality, most agencies and groups were unaware of exactly what each other was doing. No interim committee, study group or agency had been assigned the task of program cataloging and evaluating. It was past time an attempt be made to ascertain the present status of services to migrants and how comprehensive they are; it was so ordered.

Governor's Directive:

For many years prior to his assuming the governorship of Texas, Governor Preston Smith had been in favor of social and economic legislation and programs aimed at the betterment of all underprivileged peoples and particularly those whose desire for work often went unfulfilled. Legislators of migrant home base areas and migrant work areas, as well as the Governor's field personnel, continued to report the failure of certain programs and the need for others. The need for an authoritative and centralized agency or committee to coordinate the various programs and to aid in the achievement of their goals seemed to be indicated. However, it was imperative that we first know where we are before it can be decided where we should go.

The basic law of the Good Neighbor Commission contains, among other things, the following:

1) Promote the formulation of specific rules and regulations to achieve the betterment of migrants' travel and living conditions in the area of authority of the respective agencies
2) Analyze federal and state rules and regulations affecting migrant labor to determine their effect on Texas citizens, both migrant laborers and employers of migrant labor, and when opportunity arises, consult and advise with representatives of federal and state agencies
3) Survey conditions and study problems related to migrant labor in Texas, advise and consult with local governmental units, and with interested groups and organizations concerning matters affecting migrant labor.
4) Perform any other functions which may be necessary for improving the well-being of migrant laborers.

In attempting to comply with this legislative mandate the Commission has enjoyed the confidence and cooperation of all of the state agencies and private groups with on-going migrant programs. This apparently was the reason that prompted Gov. Smith to choose the Commission to undertake the chore of putting between two covers as much information as possible concerning migrant-oriented programs. Thus it was that he addressed a letter on August 13, 1970, to the executive director of the Commission, Glenn E. Garrett, in which in part said:

> "For some time I have been considering alternatives for increasing the State's capabilities in meeting the total range of social and physical needs of migrant laborers in Texas. We especially need to utilize fully their potential for strengthening the skills essential to the working force of our state. Your assistance in achieving these goals is requested . . .
>
> "As you know, various state agencies are now operating or are involved in programs designed to benefit Texas migrants. I would propose creating a task force chaired by you, composed of representatives of the Texas Education Agency, Texas Employment Commission, Department of Health, Department of Public Welfare, Texas Industrial Commission and my office.

> "This task force would catalog migrant needs, make an inventory of all on-going federal and state migrant programs and develop a state plan to bring into focus all resources at hand to produce some immediate as well as long range solutions to the Texas migrant problem . . ."

In accordance with the tone and content of this letter, the Commission set about shaping up the Inter-Agency Task Force.

Task Force:

The formation of the Inter-Agency Task Force on Migrant Labor was, by definition, instantaneous as it consisted of the heads or directors of state agencies with special migrant programs or involved in general programs that contained a migrant component. Two "probing" meetings were held with the resultant approval of an idea to form a broad spectrum "advisory committee' to bring to the task force experience and recommendations. The make-up of the advisory committee was as diversified as possible and all of the participants were knowledgeable in one or more aspects of the migrant situation. The members came from the cities, they came from the grass roots; there were migrants and crew leaders, there were growers and employers; health and welfare came and so did education and housing; clergy and organized labor were included and so were various program directors.

Striving to get "as much down on paper as possible" the workshop concept of informal communication was adopted. The five workshop designations were as follows: Housing, Education, Health & Welfare, Employment and Community Resources. A moderator and a recorded were appointed from among the participants for each workshop and at the closing general session each group reported their work and their conclusions. These results were reviewed and compiled (treating each workshop separately) and then a conglomerate summary of conclusions and recommendations was written. No editing of the material was done except for the sake of clarity and continuity. A matter of singular significance concerning this committee is the fact that the host in its invitational letter informed the addressee that the Commission had no funds for travel or expenses -nevertheless, we had 90% attendance. This should prove the personal interest these committee people have in migrant matters.

Final Report:

Subsequent to the final assemblage of material, but before the final draft of the report, a last task force meeting was called at which time the Table of Contents was approved and a deadline of mid-December, 1970, was set for presentation of the finished report to Gov. Smith. The conclusions and recommendations of the advisory committee were presented in two groupings; those requiring legislative action and those requiring administrative action. They are an integral part of the report and are herewith reproduced:

Legislation to:

1) Establish housing standards law covering labor camps and on-farm labor housing which will empower the State Health Department with authority to enter, inspect and enforce.

2) Amend the Labor Agency Law administered by the Bureau of Labor Statistics to require private recruiting agents as well as those representing companies to show proof that the housing where workers will be domiciled meets federal labor housing standards at the time they apply to the Bureau for licenses; without such proof, license to be withheld; to become effective one year after enactment. The provision would require the addition of staff to the Bureau.
3) Establish a State Housing Authority to regulate and expedite farm labor housing, or add this authority to an existing agency.
4) Establish a Migrant Information Center to gather, correlate and disseminate all possible information concerning migrants and programs designed for them. This will serve to coordinate federal, state and private efforts and avoid duplication. This authority may be added to an existing agency.
5) Establish within the framework of state government a loan program similar to that of the Veteran's Land Board for the sole purpose of improving housing for farm workers and improving the "barrios."

Administrative action to:

1) Utilize the staff of the Texas Industrial Commission to foment the location of industry in the Rio Grande Valley, using tax considerations and subsidy when necessary. Emphasis should be placed upon maximum labor use industries with minimum skill requirements.
2) Provide for close coordination between state agencies which administer migrant programs.
3) Ensure that a realistic share of federal funds for migrant projects be allocated to Texas, based on the state's percentage of the migrant population.
4) Expand the migrant health clinic concept in the State Health Department, with close coordination with the Department of Public Welfare and the Texas Education Agency.
5) Provide free tuition in Texas institutions of higher learning to qualified migrants.
6) Modify the requirements of teacher certification for teachers destined for bilingual education.
7) Make and distribute identification cards for migrants and their families.
8) Explore the possibility of subsidizing a portion of the cost of liability insurance required by the federal crew leader registration law.
9) If a State Housing Authority is established, endow it with the authority to condemn and remove from the rental market unsafe and unsanitary housing.
10) Explore the need for closer coordination between state agencies and non-governmental groups, such as Planned Parenthood and church groups.
11) Explore the possibility of establishing "half way house" counseling for migrants who have re-located in new jobs in new areas.

It should be pointed out that if the recommended new legislation becomes effective and if the recommended administrative actions are carried out, the agencies concerned will need adequate funds with which to perform the duties effectively.

The reader should be informed at this juncture that the "non-governmental" section of the report is by no means complete—it is presented as a cross section to indicate how widely diversified the interested groups and organizations are—since the short time allotted and the Commission's small staff it would have been impossible to include every group or person who is contributing to migrant assistance.

The Good Neighbor Commission's role in the assemblage of this special report has been a particularly rewarding one and we appreciate Governor Smith's expression of confidence by entrusting this survey to us. Although the Commission has been active in migrant matters for a number of years, this was our first opportunity to sit with so many concerned and knowledgeable persons and discuss many areas of the migrant situation that we had heretofore been unable to explore in depth.

At this writing it is uncertain whether this report will be subject to an annual review and updating or whether it will be used as a framework or guide plan to bring together agencies and groups (possibly on a quarterly basis) for assessment and interchange to keep abreast of each other's activities and to ascertain if results obtained are in proper relation to funds expended. The Commission's letter of transmittal to the Governor contained the suggestion that the document could be of inestimable value to all those with a sincere interest in Texas migrant workers and earnestly recommended its reproduction for general distribution. This suggestion is being carried out by the Executive Department.

SCOUTING AND MIGRANT YOUTH

Boy Scouts of America

Doubtless everyone who reads this report has, at one time or another, been a part of the Boy Scout movement or has been in contact with it through a friend or relative. Rare indeed is the day that we do not see or read about a Scout or a group of Scouts performing some selfless deed, organizing a campaign or drive for the community good or to aid some individual.

The Scout motto, "Be Prepared" is known around the world. The significance of the three links of the Scout Oath, "Physically Strong, Mentally Awake and Morally Straight," invariably causes a feeling of pride in him who takes the oath and in those who observe him in his daily activities. The goals and ideals of Scouting have proved to be the strong underpinning upon which the young men of many nations are building their individual character structure. It has been that way for many years and will continue to be so for many more.

Actually the Scout movement was founded in England by Sir Robert Baden Powell in 1907 and was shortly established on a nationwide basis early in 1910 in the United States. A short time later, in 1916, the movement received a Congressional Charter. From the very inception it was projected to be international in scope and a bare two decades after its original founding it had active organization in forty nations. At the present time, over sixty years after its beginning, Scouting is active in eighty-three countries with an approximate world-wide membership of 10 million, including Scouts, Scout Masters, aides and administrative staff.

Scouting was established on the premise that "Scouting is for all boys" and that noble thought persists to this day. However, as is often the case with good intentions, reality did not always result as theory had indicated; not all boys were in Scouting. In most cases where boys were unable to participate in Scouting the underlying problem was economic. However, when the National Council of the B.S. of A. made surveys on Mexican-American youth, particularly the migrant boys of the Lower Rio Grande Valley, they found that there was more than cost involved. Referring their attention directly to the Mexican-American migrant boys the investigators found an almost complete lack of exposure to Scouting. This was also true of the parents. As is frequently true, ignorance of a subject or idea begets distrust which is sometimes very difficult to dispel. This situation, therefore, called for a concentrated on-the-scene effort by a seasoned Scouting promoter experienced in the cultural aspects of these people and with the ability to communicate and reason with them.

NATIONAL MIGRANT PROGRAM, RIO GRANDE COUNCIL:

Bringing Scouting to the sons of Texas migrant farm workers is one more expression by the National Council of its constant effort to bring true meaning to the theme: "Scouting is for all boys."

For a number of years boys who migrate with their families to work in agriculture have been excluded from Boy Scouting, its training and its fellowship. Many felt that because they were away from home for five or six months each year they could not be Scouts. Others who attend special migrant schools thought that due to their extended school day there was not time for Scouting. Still others did not affiliate because there were no Scout units near where they lived and besides they could not afford what they believed to be a middle-class and expensive program.

It can now be said that this situation has all been changed. In 1968 the National Council of the B.S. of A. established a research project of three years duration, called the National Migrant Program, to study the needs of migrant youth and develop a program of Scouting that would relate to the boy's personal needs, his culture and his available time. This local Texas program beamed at migrants is a part of a much broader national program for disadvantaged youth, known as the Inner-City Rural Program.

The target area selected for Scouting's Texas pilot program was the Lower Rio Grande Valley, a migrant home base area with a high concentration of migrant families. The first year the project was devoted to program study, environmental study and to development. It was found that in order to serve the migrant people it would be necessary to develop certain methods and techniques to overcome the barriers and obstacles that had been identified the first year through surveys, interviews and questionnaires. Nine major barriers, all inter-related to some degree, that prevent migrant boys from joining Scouting can be described as follows:

1. Communications barrier
2. Financial barrier
3. Leadership barrier
4. Mobility barrier
5. Parental barrier
6. Prejudice and attitudinal barrier
7. Weak program barrier
8. Fear barrier
9. Scout professional's attitude barrier

Although listed last, 9. was the first barrier that had to be confronted and rectified before any forward progress could be generated in the program. Of all of the adults interviewed during the study stage of this program, the least enthused about being successful in bringing Scouting to the migrant boys was the group of Scout professionals and volunteers. Their attitude was that this had been tried before without much success, it would require too much involvement, there are too many obstacles to overcome, that these people have too many urgent day to day problems to be bothered with Scouting, etc. To an extent there was reason for pessimism as previous attempts to serve migrant boys had met with modest to zero progress and the weakness seemed to lie in the approach to the multiple problems. Fortunately for the project, the National Council took a more positive attitude and agreed to fund the three year experiment in the amount of $25,000/year and forthwith a procedural proposal was submitted for approval and was accepted.

It was immediately apparent that communication (actually, the lack of it) was much more important than had at first been suspected; not only with the boys but more especially with their parents. Bilingual personnel joined the staff, all introductory and explanatory literature was printed in Spanish as well as in English and steering meetings were held in both languages. It would appear that this bilingual approach did more than anything else to instill confidence in the target group; that the program "was here to stay" and that the staff was "going to see it through." The economic (2) barrier has been alleviated in large part by local service clubs helping with membership costs and by the cooperation of other Texas Councils contributing new and used uniforms and equipment to get new troops and members off to a good start.

In the course of study and research it was found that Scouting in the Lower Valley was serving less than 1% of the available Scout age migrant boys, 9% of the available Mexican-American boys (other than migrants) and 12% of the available Anglo fellows of Scouting age. During this study the migrant youth were, in most cases, identified for the project by migrant educators and administrators of local migrant schools. The staff of the project owes a debt of gratitude to this group for its cooperation. It was after this first year of research and technical development that a concerted plan was set in motion to recruit leadership, form troop units and push membership drives. The first and immediate result of this effort was the realization that most migrant people had but a passing acquaintance with Scouting and did not understand its aims or purpose. Informational programs had to be developed and presented at least 30 days before any unit organization was attempted in a selected community. This included bi-lingual printed material on what Scouting is, organizing parent meetings at schools, making neighborhood and home visits by the project director and selected volunteers. Also used were Scouting displays, posters in schools and churches and Scout shows were put on in migrant neighborhoods. At every opportunity the people were honestly told the cost of Scouting and the benefits the boys could derive from it.

Knowing that all migrant families are "home" oriented it was decided to use the community approach to set up troops and units. A task force was named for perliminary program development then unit "organizers" were selected for each community and the first demand of their job was to take a count of available boys so as to tailor the troop structure to the potential need. Here again the schools came into play sending notes home to parents, posting notices, loaning facilities for meetings and picnics as well as pointing out to the organizers the boys who seemed to have leadership ability. It should be mentioned that the project staff borrowed heavily from other neighborhoods for bilinqual Scout leaders, many of whom came from Anglo units.

What is being witnessed is the evolution of a campaign, or a concept, along new lines that the National Council had never used before as these circumstances (along with the barriers and obstacles) had never been encountered in any other area. The efficacy of this approach is proven by the results during 1969-70. By the time the spring migration of 1970 rolled around there were over 800 migrant boys registered in the Rio Grande Council among Cubs, Scouts and Explorers, when the previous year there had been only 50. Now we find that the percentages of available boys being served had also increased dramatically as follows: 15% of available migrant boys, 11% of available Mexican-American boys and 14% for the Anglo boys.

This National Migrant Program will terminate in July of 1971 but the local Rio Grande Council will continue to work with migrant families using the guidelines established by the project and will extend their services to other disadvantaged people. The local Council is adding a new staff member, Director of Special Projects, who will train and work with the present District Scout executives in order to extend the program to other areas of the Rio Grande Valley. This entire program being youth oriented, specifically designed for migrant kids and having for its purpose, "To motivate boys to acquire useful skills and to develop and improve their character, citizenship participation and personal fitness," must surely be recognized and appreciated as a very worthy endeavor in a very needy area.

"HOW," a handbook published in Spanish as well as in English, is one of the basic, illustrated manuals for Scouts. It has proven to be an all important tool in conveying the message of Scouting to the Spanish speaking youth.

"You made it, you're a member. Welcome to our gang. NOW you'll want to learn – –".
And there follows 127 pages of Scout lore and training that should be learned and put into practice

LA LEY SCOUT
1 UN SCOUT ES HONRADO
2 UN SCOUT ES LEAL
3 UN SCOUT ES SERVICIAL
4 UN SCOUT ES AMIGABLE
5 UN SCOUT ES CORTÉS
6 UN SCOUT ES BONDADOSO
7 UN SCOUT ES OBEDIENTE
8 UN SCOUT ES ALEGRE
9 UN SCOUT ES AHORRATIVO
10 UN SCOUT ES VALIENTE
11 UN SCOUT ES LIMPIO
12 UN SCOUT ES REVERENTE
¡Aprende esto de corazón!

And here is the Scout Law,
Trustworthy – Loyal
Courteous – Kind
Obedient – Cheerful
Thrifty – Brave
Clean – Reverent

CURRENT DEVELOPMENTS

During the years that this Commission has published an annual report its intent has been to be as informative as possible on current matters that pertain to our Texas migrant field worker and his family. Complying with this intent we will present in this section an up-to-dating, in so far as possible, of ideas, events and programs in areas of specific concern to migrants. The important areas we have chosen for discussion are education, housing, health and job development.

Our Texas migrants, in ethnic make-up, are almost entirely Mexican Americans who are part of the 1.6 million Spanish surname population within the state. Over half of this population lives within the boundaries of a four sided "triangle" in south Texas below a line drawn from Eagle Pass on the Rio Grande, to San Antonio and on to Corpus Christi on the Gulf of Mexico. With the exception of these last two cities mentioned and two counties of the Lower Rio Grande Valley, this whole area is very sparsely populated with predominantly Mexican American (in some countries as high as 90%) land oriented people. This is brought out because the location, background and orientation of these people is of utmost importance when we discuss the migrant situation and efforts being made seeking solutions to the problems involved.

The Texas migrant has, for many years, performed a vital role in the economic growth of our own and other agricultural states but it is glaringly apparent that his real contribution has been taken for granted or ignored completely. He worked when and where needed under barely tolerable living and working conditions in a seasonally repeated routine, year after year. Wages were always lower than for any other working class and it seemed that no amount of luck or good crops was ever sufficient to raise him above bare subsistence. While manual farm work changed little, great strides were being made in industry, the pure sciences and the social sciences. An awareness of self was developing and an ever increasing middle class was exerting itself in the fields of labor and social reform to assure that its members received their fair share. Busy with its own interests, this group failed to take much notice of the common farm worker's plight and the economic gap between an upward bound class and a stand-still class continued to widen. Instead of being swept along with our accelerating progress the farm worker was swept aside, he seemed not to be a part of it despite his being essential to it.

In recent years, however, social attitudes and considerations have been changing and our nation now realizes that poverty (the lot of the migrants) can no longer be ignored or swept under the rug. The poverty level farm worker has been handicapped by lack; lack of education, lack of hygiene and health training, lack of adequate housing, lack of job opportunities and, until lately, lack of governmental or public interest. Awakening to the reality that these people lack the capabilities to keep pace, let alone make up for generations of falling behind, has come as a shock to many. Much help is needed. Currently we are trying to compensate for the many years of neglect of our mobile Mexican American and to rectify his chronic substandard situation but it is proving to be far from easy to accomplish.

Current Developments

Although there are many national assistance programs that are operative and welfare per se has become a national issue of utmost importance, our approach in proportioning aid here in Texas must be far different from that of the central government. Here we are concerned with a more or less isolated minority burdened with the hardships of poverty and ignorance, but in addition having other unique problems peculiar to this group. Despite having a common ethnic background and common language the migrant farm workers of the Southwest are quite different from most Mexican Americans residing in other parts of the land. In general they are more provincial, more bound to the land and more influenced by the proximity of Mexico whose customs and heritage they share. It is important, therefore, that our programs of assistance be tailored to our people and their specific needs and at the same time be consistent with the basic theme of "help them to help themselves". These people, in the main, are reluctant to accept outright welfare but would rather think that they are making some kind of contribution toward their upkeep. To be able to help yourself, however, one must first be prepared, instructed and taught and this is inherently very difficult when we are dealing with a group whose work and life patterns are based on mobility, a group that seldom stays put.

To make our tailoring more exact and to assure that our programs really fit we should focus on the numerically superior of the three general migrant groups; the true migrant, the truly needy. The "vacationing" migrant—those who take leave from a regular job or business in Texas to go north to visit relatives and work several weeks (generally in processing) to provide a boost to yearly income—find little need to be included in program planning. The "professional" migrant—the experienced crew leader types, the working middleman types, who own their own trucks and buses and know the circuit by heart—do not need aid programs designed for them. But the "true" migrant—those who out of necessity, not choice, take part in yearly agri-peregrinations because they lack a stable or adequate income source—are the ones to be measured and tailored for. This is particularly true of the young as here we are facing a self perpetuating poverty level subsistence that cannot be self alleviated; there must be help and preparation afforded the migrant youth.

A. EDUCATION:

It is generally conceded that education is the principal key, the most important factor, in the development of individual social and economic stability. It is generally accepted that the degree of one's disadvantage seems to be in direct inverse relation to the degree of one's education. This can be said of everyone but it applies in particular to the nation's migrant workers whose level of education is the lowest. In the early 50's a stirring of concern was apparent as the government and the public became cognizant of the real extent of the educational neglect suffered by our migrants. Was it any longer valid to conveniently shrug off the problem by saying that providing these people with educational opportunities was impossible since they are always on the move? Based on federal and state studies the Congress passed in 1965 the Elementary and Secondary Education Act (ESEA) which set up the machinery for federal participation and assistance in state level educational programs. Title I of this Act, "Education of the Disadvantaged", was amended the following year to specifically include migratory children thus offering the opportunity to improve the education of these children.

Migrant Child Education:

In 1962 the State Board of Education authorized a study of the type and quality of education being offered the migrants and the outcome of these investigations was that the Texas Education Agency formulated the Texas Program for the Education of Migrant Children (TPEMC). The T.E.A. was quick to realize that regular school programs failed to meet the special needs of the migrant child and that it was necessary to design supplementary or special programs for him taking into consideration his deficiency in English, high age-to-grade ratio, need for ancillary services and to accommodate his lack of availability due to migration. To accomplish this a long range Texas Child Migrant Program (TCMP) was instituted replacing the original TPEMC. The first experimental programs of the T.E.A. under this new, concentrated effort were launched in 1963 in five independent school districts of the Lower Rio Grande Valley and included approximately 3,000 students. The child migrant program has continued to grow and for the 1970/71 school year ninety-nine school districts are involved in one or more programs with approximately 55,000 students participating—this is almost 40% more than the previous school year. The dramatic evolution of this program is shown in the following chart.

Growth of Child Migrant Program

Year	Number of School Districts		Migrant Children Enrolled
	Six Month	Enrichment	
1963	5		3,000
1964	10		6,000
1965	20	20	20,000
1966	20	20	20,000
1967	20	25	25,000
1968	20	45	35,000
1969	20	63	40,000
1970	20	79	55,000

The Texas Plan for direct assistance to local education agencies for special child migrant programs consists of several components and we herewith would like to briefly outline them:

1) The PRESCHOOL PROGRAM is a concept used to prepare five-year-old migrant children for entry into the first grade. Since 1959 Texas has had a summer program for non-English speaking children but it was not until 1967/68 that the state made funds available for migrant preschool classes during the regular school year when the migrant children are home. That first year the U.S. Office of Education gave approval to implement 40 preschool units and by last year the number had grown to well over two hundred units serving over 4,000 young students. These classes are structured so as to emphasize adequate

command of oral English and the development of learning concepts. Bilingual teachers and aides are essential to the success of this program as without exception the first language of these children is Spanish. For two years now an experimental adjunct to this program has been working with three- and four-year-olds to try and determine the age when the learning experience becomes viable.

2) The SEVEN MONTH PROGRAM is an attempt to compress into seven months a regular nine month curriculum for the benefit of migrant children whose time at home base is limited. At first this was known as the Six Month, Extended Day Program when only 131 days (1,050 hours) of classroom instruction were required however last year this was increased to 135 days (1,080 hours) to conform with the Minimum Foundation Program. In grades 1 and 2 the total hours were increased from 780 to 804. In order to conform with the migrant's travel calendar these classes seldom start before October 15 (six weeks late) and never continue beyond May 15 (two weeks early) which means only seven months of instruction made up of forty-hour weeks. It is necessary that the migrant children in this program be grouped together in separate classrooms so that they will all begin and end the school "year" at the same time. This also allows the teacher to concentrate on special methods and techniques designed for these children with common problems. This fact has caused repeated criticism of de facto segregation however the nature of the problem offers no alternative and the evaluation of student achievement proves the program to be a success.

3) The ENRICHMENT PROGRAM is a means of providing supplementary educational services to migrant children by school districts that are participating in the TCMP. Although circumstances are different between districts, they must all formulate their programs within the framework of the following three plans:

a) Extended Day. Migrant children are integrated into regular classes and participate in all school activities, then at the end of the day they attend one extra hour of instruction. The classes should not exceed fifteen students and should be devoted to oral language and conceptual development. A snack break is recommended to help relax the students as well as to take the sting out of the fact that they cannot go home at the same time as the other children.

b) Extra Service. This is similar to the extended day in that the classes are integrated, however, the migrants who are identified as needing language help get something extra. This can be accomplished by placing these students in separate classrooms for one or two periods a day where special instruction is provided by a supplementary teacher. Or this same teacher may float from class to class of high migrant make-up and displace the regular teacher for as much as a full period at a time.

c) Separate Migrant Classrooms. This provides for separate and self-contained "migrant only" classrooms and the instruction is structured around the non-graded concept. This plan too has been accused of segregation as well as being too progressive by eliminating the grading system.

4) The NON-GRADED PROGRAM is designed to replace the rigid graded structure with an achievement level concept whose flexibility allows for greater vertical movement for the students. Children are able to maintain continuous progress (achieve) at the rate their respective abilities permit, and this rate may be different for different subjects. A child who

progresses rapidly through the material of a certain subject may proceed immediately to the next level, yet this same student may find it difficult to digest the material of another subject so is allowed more time without holding back other classmates. This system is far more complicated than might be expected and the demands on the teachers are markedly increased. The student's progress is measured by his "achievement" against normal progress of his own age group as well as compared to his present classmates. Also, he must be compared to himself—is he realizing his true potential? This means that the conscientious teacher maintains a continuous evaluation of each student to determine excellence as well as to spot problem areas requiring special attention. Since the adoption of non-graded programs must involve the entire school, most school boards maintain a wait-and-see attitude awaiting further experimentation. A source of information being very carefully watched is the Tierra Blanca Elementary in Hereford which started last year with a new plant (pod design), new concept (non-graded) and new teachers trained for this technique. Incidentally, it is interesting to note that 52% of the enrollment is Mexican American, most of whom live in a Spanish speaking environment.

5) ANCILLARY SERVICES are absolutely necessary for the success of any migrant educational program. Economic and health deficiencies as well as the psychological effect of poverty are the root causes of most of the educational problems of the migrant child. The best known program is the free noon lunch (many schools have a milk and sweet roll breakfast to make sure no one tries to study on an empty tummy) but health and dental attention is also necessary to assure maximum potential. Most programs have a clothing tie-in which is generally a community effort through clothing drives, hence seldom affects program funds. Ancillary services, to be a success, must first establish a strong school/home relationship through home visitations and having parents visit the school. It is essential that the parents understand what is being offered their children, and why.

6) SUMMER SCHOOL programs for migrant children have had amazing acceptance. For those migrant pupils who stayed home last summer but who had migrated since 1967 (the child must have migrated sometime during the last three years to be classified as a migrant and thus be eligible) special educational and recreational programs were operated in thirty-nine of the participating school districts. The academic part of the program emphasizes oral language development but also offers reading, social studies, science and math using teaching techniques significantly different from those used during the regular school year. It is quite possible that the popularity of this summer training is because arts and crafts are encouraged and because nature studies, swimming and other outdoor sport activities are a part of the program.

7) TEACHER & MATERIALS development is an integral part of all migrant educational programs. Funds and facilities are the principal ingredients but teachers and materials make up the delivery mechanism on which program success or failure depends. Since we know that English language proficiency is the cornerstone of all migrant study programs, it follows that materials development and teacher training must likewise be oriented to the bilingual approach. We also know that the field of migrant education is relatively new and that so far there is little agreement among universities as to just what disciplines should be included in the training curricula. So, not being able to wait for

graduates, the Texas Education Agency, in 1966, conducted the first summer institutes for additional "tack-on" training for working teachers and teacher aides. Participants in these institutes came from the ISD's of high migrant concentration and while in attendance received a sustenance stipend during the 4 to 6 weeks of study courses and demonstrations. These first institutes were held at Pan-American College in Edinburg and A&I University in Kingsville and later expanded to the Austin campus of The University of Texas where the groups now include, besides teachers, a number of supervisors and administrators. Last summer the institutes, with varied program structures to increase the competency of child migrant teaching personnel, were offered in five different locations.

In addition to the direct participation institutes sponsored by the T.E.A. and the Education Professions Development Act (EPDA) a Migrant Educational Development Center was set up in 1968 under the supervision of the Southwest Educational Development Lab to field test curricula and special materials relevant to migrant instruction. Also the Center trains selected T.E.A. staff personnel who in turn conduct in-service training for classroom teachers in an effort to minimize delay and make the Child Migrant Program more immediately effective.

The Texas legislature in 1967 implemented a new educational concept, the Regional Education Service Centers. The basic objective of the Centers is: "to make quality ideas, services, information and teaching materials available to Texas schools wherever and whenever they are needed". Throughout the state there are twenty such centers involved in program and materials development, staff training and community awareness, classroom visitations and counseling. It is to be understood that the goals and techniques of the Centers vary somewhat depending on different area needs. Thus it is that in the seven Centers located in migrant impacted areas proficiency in English has first priority whereas other Centers may stress other subjects. Special mention should be made of Regional Center I in Edinburg whose teaching and testing materials designed for Spanish speaking children have awakened national attention. As a matter of fact, the curriculum director of Center I has been elected as an officer in the association of "Teachers of English to Speakers of Other Languages". For a state as diverse in regional educational needs as Texas the regional center concept allows for more emphasis and research on strictly local needs than would be possible using one centralized staff in the state agency.

Another Texas innovation in teacher training was started in 1966 when the T.E.A. entered into an Interstate Cooperation Project with twelve destination states who then played host to twenty-four of our teachers from Child Migrant Program schools. The following year six additional states joined the cooperative project. For six to eight weeks during the summer these experienced and bilingual teachers worked with the host states' education department staff to help provide schooling continuity in the work areas and to act as consultants. This project was not a one-way street, however, as our teachers gained knowledge through their interviews with employers and migrants and through their contacts with program sponsors and service people. Later this collective experience is shared and documented at a "reporting conference" in mid August at the T.E.A. in Austin where panels discuss before the group pre-assigned topics relating to migrant educational development.

Lastly, under migrant child education, we want to touch on the progress of the Uniform Migrant Student Record Transfer System which is a computerized record keeping system designed to make readily available the permanent record of any migrant child regardless of where he is enrolled. The central data bank is in Little Rock, Arkansas and is supported by hook-up terminals scattered across the country. By July of 1971 there could be as many as 300 terminals tied into the system. Some consumer states will operate their terminals for only two or three months in the summer whereas supply states such as Texas, Florida and California will maintain terminal service the year round (Texas at present has eleven terminals). This system is the culmination of a project, started in 1968, to not only keep track of the students but to assure his being placed in the proper class and to assure academic credit for his away-from-home instruction. In addition his record can carry coded information on health exams and a variety of childhood diseases which in some cases have a bearing on educational potential. Here again, as in the non-graded concept, the records will carry the student's achievement level, instead of grade level, as determined by the results of accepted standard tests.

Bilingual Education:

Bilingualism—to speak and function well in two languages—is not unique as it can be found all over the world on the borders between different language countries. In these same areas and under like circumstances we also find the existence of bi-culturism, but to a somewhat lesser extent. However, bilingual education is quite a different concept, being defined as the total development of the child bilingually so he can realize his capabilities in two languages. Thus it is not merely the use of a child's first language as a bridge to English and then abandoning the home language as English proficiency improves. Rather, it is the realization that a second language can be taught as easily as any of the Three R's can be taught as long as the medium for teaching it is the first language so as to achieve bilingual dexterity.

Why is it that for almost 200 years our educational system taught foreign language as a second language to English and now all of a sudden we find that there is an urgent need to teach English as a second language for some students before proceeding with the educational process? During the developing years of the United States most immigrants were of European stock who physically removed themselves from their home land and temporarily divorced themselves from their culture and language in a concerted means, to conquer English since it was the medium through which all else was taught. Our Mexican Americans on the other hand, have not really followed the "melting pot" pattern of the Europeans and have remained indifferent, sometimes even hostile, toward assimilation. The Mexicans have been here in the Southwest for hundreds of years and never felt the need to change their language or customs. The fact that a boundary line was drawn and a treaty signed causing some of them to become Americans while others remained as Mexicans did not seem to impress them, nor make much sense for that matter. They were not emigrants going to a far off new land so why should they adopt a new language and culture just to be like the Anglos? However, the fact remains, they were left out and overlooked and Anglo domination became entrenched. Now the long range results of this situation must be rectified and the first step is language development.

Current Developments

It is quite possible that the first awareness of what was to come came right after World War II when the G.I. Bill of Rights received so many Mexican Americans into its education and training programs and we learned first hand the deplorable truth about the veterans' educational level. This prompted a look at the mass of people ineligible or untouched by the G.I. Bill; truth here, determined by research and study groups, was found to be even more deplorable. And now Texas finds itself in the situation that 21% of the student population of the state speaks Spanish as their first language and approximately 50% of these come to school speaking little or no English.

Actually, the reasons of how and why we find ourselves in this situation are not as important as the fact that we are in it and need to correct it posthaste. The State Board of Education's legislative suggestions to our governor said in part; "The inability to understand and speak English has excluded linguistically different children from effective participation in the traditional educational program offered by a school district". And one of its recommendations was stated as; "Where inability to speak and understand the English language excludes linguistically different children, the school district must take affirmative steps to implement a bilingual education program in which children continue their intellectual development through the use of their mother tongue and simultaneously develop facility in English, thus becoming proficient in two languages." This is being done.

The first tentative bilingual education program in Texas was started in 1964 and immediately ran afoul of a Texas law prohibiting the us of a language other than English as medium of instruction. The letter of the law was circumvented by calling the first bilingual classes "experimental" and this designation continued until the Bilingual Education Law (HB-103) was passed by the 61st Legislature in May of 1969. This legislation followed closely an amendment to the Elementary and Secondary Education Act of 1969 creating a new Title VII authorizing the use of federal funds for the development of bilingual programs designed to meet the special needs of children who have limited English-speaking ability and who come from low-income families where the dominant language is other than English. This applies particularly to our migrant children who have limited exposure to English and who use Spanish as their only means of expression.

Texas and California have been the principal recipients of federal aid as they are the two states with the most Spanish speaking citizens and where the need for special programs is the greatest. This financial impetus allowed the Texas Education Agency to set up the International and Bilingual Education department as a separate office within the agency and headed by an assistant commissioner. This in turn prompted the formation of a Commissioner's Advisory Committee on bilingual education made up of persons in and out of government who are involved in parallel programs in benefit of our Mexican Americans. This last year there were thirty-two Title VII projects that were operational — thirteen of which were new. The idea is catching on. We have been intentionally brief on our coverage of this very important concept in helping the linguistically deprived child since in our next year's annual report we will be doing a complete chapter on the background, development and future outlook for this significant approach in preparing our Spanish speaking youth for full participation and equal opportunity.

Adult Migrant Education:

It is virtually impossible to acquire reliable statistics on the educational level of our adult migrant farm workers. The fluidity, and often inaccessibility, of this population make a true cross section study very difficult. In sufficient interviewers, insufficient sample and the inability to verify given answers tend to cast doubt on most surveys and conclusions made therefrom. We have known for a long time that the educational level of the adult migrant was low, as was the case with the migrant child, but never knew for sure just how low. The Texas Employment Commission, using a team of rural outreach interviewers (while pursuing the objectives of its Experiment and Demonstration Migrant Project) worked with a random sample of 780 migrant families and another 200 family sample of non-migrating migrants. The questionaire used to identify and classify these samples contained a question on educational level. The following are the results relating to heads of family and working adults of 17 years and older but not a family head.

	Number of Years of Formal Education					
	0	1 – 3	4 – 5	6 – 7	8 – 9	10 & over
Head of family	27.8%	28.7%	16.4%	15.4%	7.0%	4.7%
Working Adults	14.4%	12.4%	16.3%	20.0%	18.9%	18.0%

These figures are based on voluntary answers and no testing device was used in an attempt to verify, hence we are actually dealing with years of exposure to education which is not necessarily related to achievement level. Thus we see that over 70% of the family head had five years or less of schooling and in reality probably function at a much lower level. Going to school off and on for five years does not necessarily mean that one's educational level is the fifth grade. The main point to be made does not depend on the absolute accuracy of the above figures but rather on the fact that almost two-thirds of the migrant adults are "functional illiterates" attempting to maintain a foothold in society by any means they can; from farm work to welfare.

As with the migrant child, the basic drive for "participation and equal opportunity using the medium of education" is the same, however the programs are somewhat different in structure. With the adults we encounter the same two base problems of language deficiency and limited time for exposure to instruction, but with the added burden of the adult's family responsibilities. Hence, in a number of programs a provision has been made to provide financial assistance for family upkeep while the adult migrant studies or is in training. After a study of a number of educational programs that have been funded, there seems to be no hard and fast rule that can be applied to direct monetary aid; different programs have different guidelines. For example, On the Job Training (OJT) provides a wage while learning the job, Work Incentive (WIN) gives a stipend to welfare referrals to training slots as do many Adult Migrant Education (AME) programs whether in basic or vocational education, while on the other hand there are many evening and after-work programs with no sustenance component at all. So by a diversity of programs, the attempt is being made to

offer some kind of viable training to all who need it — believe me, it is by no means a simple matter.

From the very beginning of program development it was realized that the bilingual approach was necessary for the adults (as it was with children) whether it be in basic education or in skill training. This was immediately apparent upon examination of the entrance forms when it was found that the applicants could not respond in writing in either language. In others words, if certain minimum requirements were applied for program participation it was found that the most needy (the two-thirds shown above) would be rejected. Corrections and modifications had to be made, even new programs developed, to accommodate the adults at this near zero attainment level but at the same time not permit them to jeopardize the progress of other better prepared participants. Striving to accomplish this we now have on going programs (fashioned after children's programs) that stress language proficiency using English-as-a-second-language in order to prepare the individual for more advanced work and subsequently for vocational and skill training. Needless to say, it takes much time, patience, money and dedication.

We would like to mention three Texas programs which, although not beamed directly at migrants, are designed to fill the needs of disadvantaged adults and which appear to be gaining momentum. ADULT AND CONTINUING EDUCATION is a Texas Education Agency effort to supply learning and instructional experience to migrants and dropouts, as well as those adults who have never had any formal education. This approach is a sort of subtitle to the basic Adult Basic Education concept as it is intended to accept referrals and volunteers into an educational climate using "learning centers", as a rule staffed from 9 AM until midnight (this is flexible and based on demand) allowing the participant to indulge in supervised self-help education. Since there are no rigid rules on attendance (and human nature being what it is) evaluation of achievement is often difficult but this program, if properly used and if the person is qualified, can lead to a G.E.D. or high school equivalency.

Action by the 61st Legislature in 1969 gave independent status to the TEXAS STATE TECHNICAL INSTITUTE which had formerly been a part of the Texas A&M system and known as James Connally Technical Institute located on the air force base near Waco. The almost spontaneous success of this first institute for training and retraining provided convincing evidence to support the request for autonomy and expansion. Since that time two new campuses have been established at Harlingen and Amarillo and planning is well along for a third to be located in Big Springs. The Rio Grande campus in Harlingen has just inaugurated a complex of buildings costing $3.2 million as part of a five year building plan estimated to cost a total of $15 million. The present enrollment of 1,150 is up from the initial enrollment two years ago of 40, while the staff has increased for 24 to 136. This is the only one of the three campuses where the majority of the instructors are bilingual since almost all of the students in this Lower Valley facility are from Spanish speaking backgrounds. English is the principal language of instruction but there is no hesitancy in using Spanish when it is expeditous to do so. The outstanding success of this vocational program is due, in great part, to staff and student enthusiasm and administrative know-how, and for one who understands this "in between" group and appreciates the way T.S.T.I. is meeting the need, it is not difficult to visualize a chain of these institutes throughout the state.

Third in this group is a program called TECHNICAL-VOCATIONAL EDUCATION which is an outgrowth of Governor Smith's relentless drive to improve "Tech-Voc" training at all age levels. The fundamental structure of the new program is based on an extensive report submitted to the Governor in March of 1970 by the Advisory Council for Technical-Vocational Education in Texas. As is pointed out, not everyone can or should go to college and one outstanding reason why is lack of academic ability, however this does not mean that the person lacks talent or ability in some occupational field. Therefore an important part of this program involves counseling to identify native abilities and preferences so as to direct the individual into the proper training program. Although there are no restrictions preventing migrants from participating, the adults seldom sign up because of their lack of basic education and the language barrier. Contrary to this, migrant children and other Mexican Americans are joining tech-voc classes in ever increasing numbers.

Vocational education enrollment for 1970 amounted to slightly over 250,000 and the group breakdown was: 5% in Junior High, 50% in Senior High, 42% were adults and 3% were in special needs programs. With the present budget increased by $10 million over the last one we can expect continued expansion in this educational effort.

Goals:

The Division of Planning Coordination of the Governor's Office in September of 1970 published an ample report on the "Goals of Texas" to inform all state agencies and the public alike, of the immediate and long range goals we hope to achieve. Before leaving the subject of education, I would like to list (taken from my brief notes) some of the goals contained in the report that could strengthen the educational base for migrants.

1) Develop new education techniques and curriculum materials.
2) Strengthen "Education Service Center" program.
3) Increase Teacher and Teacher Aides summer workshop institutes.
4) Rework the "I.Q." testing approach using the home language to prevent improper or incorrect evaluation of the child.
5) Encourage the concept of "self worth" in every child.
6) Expand use of "para-professional" aides and tutors to help alleviate teacher shortage in this special field.
7) Provide a two year course leading to certification as teacher aide and also provide adequate salaries.
8) Establish a Bilingual Council and language "laboratories".
9) Emphasize remedial programs for disadvantaged children.
10) Increase "enrichment" and "remedial" summer courses.
11) Expand AME (basic, skill and continuing ed.) programs. Encourage Mexican Americans to take "continuing" staff training.
12) Expand Tech-Voc courses offered at Junior and High School level and conduct crash program to train more Tech-Voc instructors.
13) Continue expansion of the successful T.S.T.I.

B. HOUSING:

Housing is a very delicate subject to treat upon as invariably one becomes mired in polemics, criticisms and something-must-be-done pleas or threats and the final outcome is always frustration. From a national standpoint we just can not seem to coordinate and stabilize the many factors affecting housing supply and demand. Population explosion, rural to urban migration and then urban to suburban movement, skyrocketing construction costs, tight money, civil rights, workers strikes, zoning conflicts, etc. are a few of the coordinates in an imaginary graph called "Critical Housing Shortage". Add to these active variables the effect of higher housing standards which inexorably forces more units into the substandard or inadequate category — a sort of housing bone pile that soon becomes an urban eyesore and later a blight—and this chronic problem becomes even more complex. The importance and the urgency of this situation was recognized several years ago and in late 1965 a new cabinet level department, Housing and Urban Development, was created to deal with just such matters. After five years HUD has relatively few successes to point to considering its prodigious program efforts and even more prodigious spending. One would think that earnest desire, knowledge, hard work and money would form a "pro-housing" winning team but it seems the above mentioned variables make up a formidable opponent.

If the national and regional scenes are truly as dismal as the endless hearings and criticisms indicate them to be, what hope for improvement has the migrant farm worker whether at home or when migrating? If in the broad sense, policy making and funding have been unable to solve the housing problems in the areas spotlighted by public clamor and concern, what can the "non-spotlighted" migrant expect?

Until recently the migrant worker has been (almost by tradition) last in line for most all social services and programs so it is not surprising that his travel, work area and home base housing was the most deplorable and yet received the least attention. There are many reasons given for this situation. For example, work area facilities that were adequate twenty-five years ago are woefully inadequate today. Whose fault is it? The farmer/grower cannot afford to upgrade his housing with today's low returns from agriculture. Why pump new money into old facilities that are occupied only a few weeks each year? It would be even less logical to build new housing at today's costs. Then too, mechanization may soon reduce labor demand to the point where local labor can fill the need, hence no need for housing at all. And so on. The case of large community or association labor camps is even more difficult to solve since they are perennially broke or underbudgeted for simple and necessary maintenance, so funds for improvements or new construction is just an impossible dream and never forthcoming. But in reality, are these reasons or are they excuses? Somehow an equitable solution must be found whereby the migrant worker is afforded "decent" housing (to use the law's term) without working undue hardship on the grower or the camp owners.

Travel Housing:

Since migrating for farm work began (whenever that was) the matter of housing while traveling has pretty much followed the nomadic principal of do-it-yourself and depend on no one. Stopping under a tree on a side road, staying in a public camp ground although

unwelcome, parking behind a highway billboard (but seldom under a roof) was about the full range of migrant travel housing. Care was taken to avoid authorities who were often prone to think vagrancy and suggest that the travelers move on if they wished to stay out of trouble. In recent years, with vehicles being faster and somewhat more dependable, many families and crews opt for driving straight through to destination by spelling off drivers rather than risk confrontations and possible delays. One can only guess at what happens to the driving safety factor toward the end of a 1,500 mile nonstop trip.

Today the situation has changed but little and we know of only three places in the entire Midwest where our migrants travel, that offer complete and supervised rest stop facilities — none of these is within the borders of Texas. The rest stop with the largest visitor count, the longest operating experience and the longest season (nine months) is the Migrant Labor Center in Hope, Arkansas. In previous reports we have gone into detail about the Center so here we will merely update the statistical data and the "peak load" chart as shown on the following page. Although the Center enters its second decade of service to migrant travelers, it has been at its present location only since 1965 so comparative data is given from that year forward.

1965 — 17,905

1966 — 28,237

1967 — 41,676

1968 — 48,593

1969 — 55,652

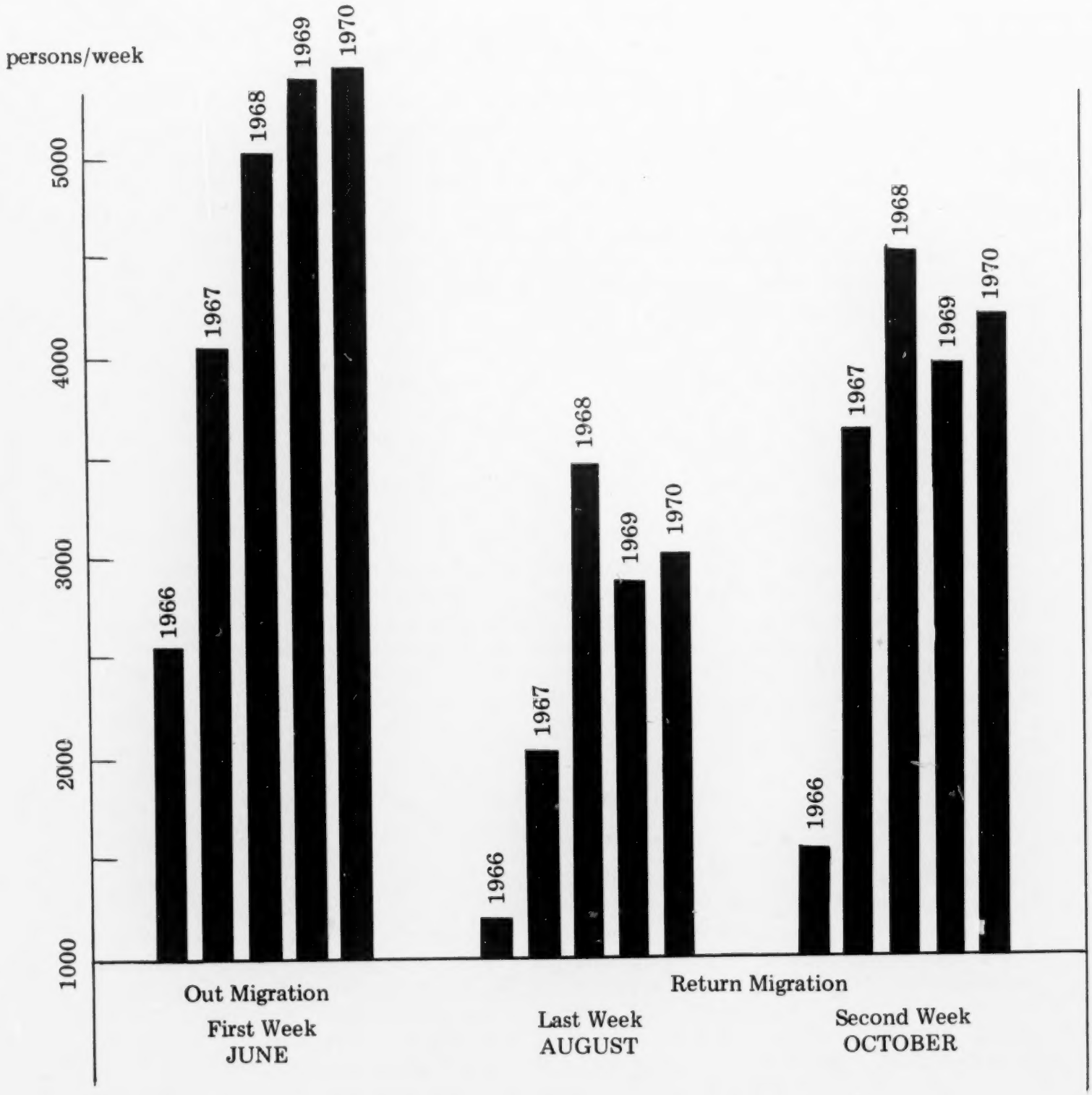
1970 — 56,513

Although designed and built as a service center the rest stop in Hope offers many opportunites for data and information gathering to this Commission and others involved in migrant studies and programs. The Center's weekly reports summarize demographic data, origin and destination, etc. as taken from the group registration forms that are filled out by the "clients". As an example, we find that the "on stream" demographic make-up has varied but slightly over the years; the last two years illustrate this.

PERCENTAGE OF:	Youth Under 16	Total Workers	Workers Male	Female
1969	39.6%	60.4%	52.0%	48.0%
1970	40.3%	59.7%	51.5%	48.5%

Of equal importance is the fact that Hope acts as a "funnel" for a large number of north and south bound Texas farm workers thus allowing us unlimited interview opportunities. Using this interview approach we found out the most popular travel routes used by Lower Valley and South Texas migrants when bound for the Great Lakes states or when traveling to the Plains and Panhandle area and beyond. It was a study like this that prompted this Commission to recommend that rest stop facilities be established at Cleveland in Liberty county and Eden in Concho county as intrastate stop-off points. This would allow the migrant to abide by the migrant transportation law of 1969 that requires a full and adequate 8 hour rest in relative comfort after 600 miles of travel.

COMPARISON OF PEAK TRAFFIC LOADS
Migrant Farm Labor Center, Hope, Ark.



As long as there are migrants (and there will always be migrants) it is the studied opinion of the Commission that more aid and consideration should be shown these people who are willing to travel great distances to seek work. The earnings they bring back, meager as they may be at times, indirectly represent a like amount of savings to the Texas taxpayers in reduced relief and welfare costs that would have been spent had these people not worked. Isn't it just good business to help the migrant help himself?

Work Area Housing:

To present a true perspective of housing available in the work area we should distinguish between on-farm and processor housing, multiple housing (labor camps) and rentals. Further, we should examine what other states offer (interstate) and what the state of Texas offers (intrastate).

Thirty-two states have some sort of labor housing laws or regulations (Texas is not among them) and there is also a Department of Labor law, in effect since July of 1967, that outlines minimum requirements for acceptable housing for agricultural workers. In an effort to force compliance with these standards, the law states that non-conforming growers and other labor comsumers will be denied the interstate recruiting services of state employment security agencies. The D. of L. allowed owners a year of grace and then issued temporary approvals and waivers to minimize the hardship of a now-or-never enforcement program (besides, there were insufficient inspectors to handle the inspection requests). But now in its fourth year, opinions are mixed as to whether the law is accomplishing it basic objective of providing better housing for farm workers.

Consumer-states report that housing is improving, but slowly, and the money leading agencies do not seem to be overwhelmed by loan applications. Doubt is cast on the wisdom of the D. of L.'s approach as we note the drastic negative impact on work orders and referrals of the various state employment agencies, particularly the Texas Employment Commission as a labor supplier.* Then too, one of the main arguments — that improved housing is a strong bargaining point for securing and keeping good workers — has lost it convincing ring as it assumed a continuing tight farm labor market, which is no longer true. Correspondence from labor receiving states reported a marked increase in "freewheelers" last year and expect it to be even higher next season. Understandably, this has an adverse effect on our agencies' interstate control over the movement of farm workers and thus forebodes a return to the chaotic days before labor and job were coordinated by matching orders and referrals for a job commitment.

In general, processor housing is better than on-farm housing as canners and packers are under constant scrutiny by inspectors for sanitation and safety and they also keep and eye on housing. For processors it is easier and cheaper to maintain worker's quarters, than it is for farmers, as their maintenance crews can work on housing during plant down time at regular wages and besides the companies get a better depreciation break. In contrast to this, large labor camps have the worst housing. Shortage of funds, divided responsibility (sometimes none at all), overcrowding and high transience are a few of the causes.

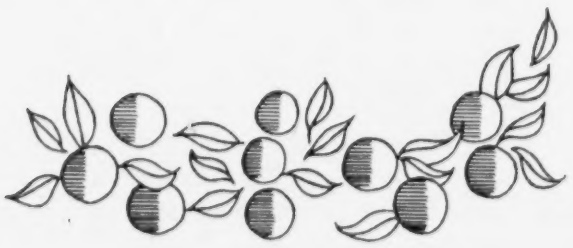
*see the last page of the following chapter, "Trends & Summary".

TRABAJADOR AGRÍCOLA

¿Quiere un trabajo con buena habitación? Entonces...

FARM-WORKER

Want a job with good housing? THEN . . .



Concurrently with the promulgation of the labor housing law the Department of Labor issued these folders through local state employment offices. The message was to the effect that the worker-occupant is expected to take care of all of the facilities that he uses. Further is said that if the employer did not have approved housing the worker should advise the nearest local labor office and the representative would try to get him work where there was good housing. The Department of Labor meant well but times have changed.

There is no easy way to summarize the interstate housing situation. No two migrants are alike and no two farmer/grower are alike. Some worker-employer relationships have endured two decades or more with the worker and his family being an integral part of the grower's family. The workers return every year, they have their key, the housing is their "home away from home" and they take care of it. Both parties strive to keep housing and working conditions at apogee, emergencies and problems are solved on a basis of mutual respect and interdependency — these are fortunate indeed. In contrast we often have the worker with no respect for property and the employer with a take-it-or-leave-it attitude on housing who says, "I am giving them work, what more is expected of me?" Then there is the farmer who each year has the expense of putting his housing back in order after another "migrant invasion"; he often prefers to give the workers a rental allowance and let them find their own quarters. However, we find the most trouble with the "freewheelers" and those who hire them; with no precedent and with no commitment to govern, they are often in a hassle over abuses or cheating long before the season is over. Again, this is a result of the serious weakening of the position of the employment security people in the handling of farm labor supply and demand; it is to be lamented.

There are several government agencies with loan funds available for labor housing improvement or upkeep. Housing and Urban Development (HUD), the Office of Economic Opportunity (OEO), the Economic Development Administration (EDA), the Farmers Home Administration (FHA) and Agriculture's Rural Community Development Service, to name a few. Although loan programs, at easy interest, have been avaiable for some years most owners are reluctant to borrow in order to invest in something they consider as non-productive. However, for those interested in on-farm and camp housing ideas and suggestions, we recommend Handbook # 383, "Housing for Migrant Agricultural Workers" published by the U. S. Department of Agriculture.*

Looking at the intrastate aspect of work area housing we must first establish that the federal housing law mentioned above does not apply to Texas housing used by Texans, and since Texas has no housing law of its own it follows that little can be done about the matter until such time as we do have a law. A decade ago the "braceros" were protected by housing standards agreed to by the United States and Mexico. Today we have no minimum standards even though now families are migrating whereas before we dealt only with single males. At present no state agency can do more than merely "suggest" to owners that they improve their housing facilities. Even our health department, guardian of the public health, is powerless to make on-site inspections against an owner's will.

In the 30's and 40's a number of large labor camps were built in Texas by the federal government. Their purpose was to house the multitude of workers required by cotton and they were constructed where the cotton was grown. The cotton is still there but the work is not, so these camps are struggling to stay alive by renting to low income permanents. In the meantime the changing agricultural pattern, the introduction of labor intense crops in the High Plains and the Winter Garden areas, caused an urgent need for temporary housing. As the federal government had finally extracted itself from housing ownership and was not about to enter the business again, nor was state help forthcoming, it fell to the interested

*Superintendent of Documents, U.S. Govt. Printing Office, Washington, 20402 — 50 cents.

DIMMITT: (Castro County) Concrete block construction, 23 buildings for 192 families (48 two-bedroom for permanents + 144 single bedroom for migrants). Single units have connecting doors for large families. Gas stove, water heater and refrigerator. $12 — 15 per week includes utilities. Coin-Op laundry. TEC office. Paid manager. Inaugurated January 1968.

SABINAL: (Uvalde County) Cypress City Agricultural Housing Association. Concrete block construction, 40 units (19 three-bedroom, 9 two-bedroom, 10 one-bedroom plus two dormitories for 18 singles each). Stainless sinks, gas stove and water heater, refrigerator and utilities for $12 — 15 per week. One third permanents. Working season eight months. Paid manager. Opened November 1969.

PLAINVIEW: (Hale County) "Date Street Housing Project". Concrete block construction, 10 building - 128 apartments, (56 units for permanents + 72 units for migrants.) Stainless sinks, gas stove and water heater, space heater and refrigerator with utilities included in the rent. Occupants formed Renter's Committee to assist paid manager. Coin-Op laundry. Day care center. Inaugurated November 1970.

parties to work out a solution. To do so required the formation of local housing "associations" and applying for loans and aid to construct housing where it was needed. All associations so far have maintained an equitable balance between farmers and business men in their membership.

On the opposite page are described three projects financed through the Farmers Home Administration, all using the same basic plan. Once the association's integrity has been established and its project proposal approved, the FHA is willing to make a 33 year, 5% loan as well as offer a free grant (which can amount to as much as 50% of the total project cost). Original planning was strictly migrant oriented but it was soon realized that a certain percentage of low-income permanents would be necessary to meet operating expenses and help toward making payments on the loan. An unexpected side effect of these projects; since these modern and convenient apartments rent for little more than the "chicken coop" housing formerly available, many of these substandard facilities now lie idle thus giving the city fathers a better chance to condemn these shacks and order their removal.

Legislation is again being introduced in this year's 62nd session to provide the Texas Department of Health with authority to regulate labor housing. The idea is generally looked on with favor by the legislators and if passed will give us the opportunity to bring about improvement in our intrastate housing.

Home Base Housing:

The type and quality of migrant home base housing, like any other possession, depends on what he can afford and on how much pride he takes in it. Then too, where his home is and how much time during the year it is occupied must be considered. Is the place urban or rural, in a subdivision or a "colonia," is the migrant an owner or a renter, etc.? With so many variables, it is safe to say that migrant housing stands at no fixed level but can be graded from good, to poor to deplorable. Since it is generally accepted that most migrants earn less than the poverty minimum, their homes are generally a reflection of this economic privation and therefore fall into the last two categories mentioned.

Although in recent years there has been considerable migration to other areas in the state, the Lower Rio Grande Valley remains the principal and most varied migrant home base area. Here, at the very southern tip of the state, we encounter a number of small, incorporated towns with the usual chronic municipal problems of services, utilities and taxes. These towns, despite their problems, make public utilities available to the urban migrant, regardless of how humble his quarters, which is a great advantage over his rural counterpart. Some land developers with subdivisions on the municipal fringe have paid to be tied into the local water and sewer systems—others have done nothing but make promises. The dislocated subdivisions and colonies located apart from the towns, along with the non-self-supporting squatter settlements, combine to make up 80% of the inadequate Valley housing; inadequate in the sense that they lack services other than electricity and mail delivery. At the same time a high proportion of these same houses are usually substandard structurally.

The desire of the farm worker to have a little plot of his own and buy or build a little house has encouraged the proliferation of these subdivisions and colonias. Knowing this we were amazed to learn from a Hidalgo County Housing Authority survey taken in November of last year that the two counties of Cameron and Hidalgo together offer 2,867 units of low-rent labor camp housing and that occupancy was 98% at that time of the year. Discussing the survey, we found that about 25% leave each summer, another 30% lock up but retain their apartments (units) at a reduced rental and the rest of the units remain occupied. These rental camps maintain a program of upkeep that is seldom possible for the small home owner who is absent six months at a time. Migrant home owners who are away up to ten months (working Florida after returning from the north) generally rent their place or leave some family members at home as house watchers.

Urban and city limit housing has improved much in recent years. Government loan programs, Self Help and Urban Renewal have been helpful and municipal annexations have been instrumental in the delivery of services. Urban renewal is not without its problems however; regardless of what they are offered, some people refuse to allow their shacks to be destroyed. And even in the poorest barrios where a renewal program is being contemplated, there are always a few excellent houses that do not fit the guidelines of the project but are still too expensive to raze.

Possibly the best results in housing aid are coming from the direct-to-the-people approach being used by the Department of Housing and Urban Development in cooperation with the Farmers Home Administration. The FHA has had four local offices in the Valley for several years and they have built up numerically impressive client files so it is only natural that HUD would request close cooperation from FHA from the beginning of its program planning in 1968. HUD has launched many and varied programs, seventy-three to be exact, to try and help those of low-income status to upgrade their housing or purchase new housing with easy terms. Of particular interest for low-income families are Sections 235 and 236 of the National Housing Act as administered by HUD'

The intention of Section 235 is to promote home ownership or membership in housing cooperatives. One form of assistance is for HUD to make a monthly payment to the mortgagee, on FHA insured mortgages, so as to reduce the interest payments assessed to the buyer to as little as 1% a year. Also, if the mortgage payment proves to be more than 20% of the buyer's average yearly income, HUD will make up the difference. With this type of help, ownership equity is built up even though payments are small. Section 236 has as its objective the promotion of rental housing for low-income families which generally takes the form of multiple units and cooperatives. To be eligible for FHA mortgage insurance the mortgagor must be a nonprofit or cooperative corporation. Here the tenant or co-op member must pay the basic rental or 25% of his monthly income, whichever is greater. Although we know of no 236 projects in the Valley, there have been many applications processed under 235.

Here at home base we feel that programs are beginning to show results. Driving along the streets of Valley towns it is surprising the amount of new construction and improvements to be seen, and the amount of new chain-link fence being put up. There is a long way to go but our goal (decent housing) will be more easily attained than in the large inner city ghettos; just do not turn off the assistance!

C. HEALTH:

An examination of the migrant health effort in Texas would indicate that more actual "developments" have taken place this last year than in Education or Housing. These last two areas of endeavor are continuing with, and in some cases expanding, proven on-going programs but in Health we see some new concepts emerging that should enlarge our coverage and facilitate the delivery of services. Deficient and often times nonexistent health attention constitutes the third side of the frustrating triangle of neglect of the migrants and it seems appropriate to introduce the subject last since both education and housing bear directly on health and on health habits. Without some basic education it is impossible to comprehend about health, without proper housing facilities it is impossible to control environmental health. Likewise, without education how can one learn about hygiene and its importance, about nutrition, about sanitation, immunization, etc., and without adequate housing protection against vectoral and bacterial disease and infection is very difficult.

As will be brought out later, our Migrant Health Project was initially somewhat slow in developing and one factor was the target people themselves. The migrant's approach to health has changed little in generations; a person either had good health or bad, so he was either lucky or unlucky—and if it were the latter it was just too bad as there was little to be done about it and few means with which to do it. Until recently many migrant families have relied on home remedies and "curanderas" who in turn relied on herbs and potions that date back a century. Now the ranks of these quasi-medics are thinning and yet the migrants have found the transition to acceptance and adjustment to our modern concepts of health services to be difficult and confusing. Therefore we have a group of people whose work demands good health and stamina but who are nutritional cripples, devoid of health knowledge, thus becoming easy prey to many serious and puzzling illnesses and with virtually no resources with which to fight.

Our Texas Migrant Health Project was an outgrowth of the national Migrant Health Act of September 1962 and was designed to "provide health services to the migrant farm worker and his dependents" (this Act was amended in 1970 to include seasonal workers as well). This Act authorized an appropriation of $3 million for a three year period to start upgrading "health services and conditions" of migrants. From the inception of the program progress was hampered by lack of knowledge on the part of the working health professionals, the communities involved and the migrants themselves concerning health care needs, by a lack of adequate resources and facilities, frequent community rejection, insufficient funds, mobility, etc. However, the first three year's experience, if nothing more, underscored the desperate needs of the migrants and led to a three year extension of the program with the addition of a hospital care component to increase the scope of services.

Subsequent extensions and additional funds brought our Texas project from a beginning of three local clinics to last year's total of 23 operational local units. Nine of these are integrated into the operations of state affiliated local health departments, three are in counties with state affiliated departments, while the other eleven are operating in counties which have no other health agency. Although drastic modifications were necessary in 1969 due to reduced federal funds, prospects for project expansion are now very encouraging

since a presidential signature in March of 1970 extended the Act for three years. The funds authorized under the extension are $20 million in fiscal '70, $25 million in '71 and $30 million in '72 (quite a change from the $3 million for three years at the beginning). In addition the Act now contains the words, "provide a continuity in health services for", which is a long step forward for interstate coordination as we will see later.

The hospital component continues to perform at the same level of service and cost outlay. It is interesting to note (based on a two year average) that three basic causes make up three-fourths of the total cases of hospital treatment and confinement. They are: 1) Deliveries = 48%, 2) Respiratory disorders = 16%, 3) digestive system disorders = 10%. As a parallel component to hospital care the recently established program of dental services seems to be enjoying an increase in case load while at the same time reducing unit service cost. At present 80% of the local projects offer some type of dental attention.

Migrant Dental Services

	1969	1970
Projects with dental components	17	19
Migrants receiving some dental service	1,079	1,395
Number of dental clinic visits	2,410	2,840
Number of dental services rendered	6,105	7,766
Average visits per patient	2.23	2.03
Average corrections per patient	5.65	5.56
Average cost per patient	$37.31	$24.93
Average cost per visit	$16.70	$12.25
Average cost per service	$ 6.59	$ 4.48

This dental segment of the project must continue to expand as a comprehensive survey of the poor (by the Public Health Service and the H.E.W.) shows that 93% of this group is in need of dental work. A request, yet to be acted upon, has been made soliciting grant help in financing the acquisition and operation of two mobile trailers equipped for complete dental services. Unless one has a screaming toothache one is apt to overlook dental care and mobility would be the obvious way to bring the services to the needy—of particular value to rural people and those in isolated settlements.

Family planning continues to receive more and more emphasis as an essential health service. Although the Public Health Service some years ago singled out the migrant population as the target group most in need of instruction in family planning and a number of programs were initiated, acceptance of birth control has been slow until the last three years. The remarkable increase in public interest, amount of funding and number of program participants is ample proof of the logic of this health project. The basic program of counseling, examinations, descriptive literature, instruction and supplies is a coordinated effort involving our Department of Health, the Texas Office of Economic Opportunity and Planned Parenthood Worldwide Population—all with executive offices in Austin.

Family planning programs in Texas funded under the Economic Opportunity Act have increased from five in 1966, to twenty-four in 1969, to thirty in 1970. Funds, in the amount of $850,000 for 1969, were increased to $1,960,000 for 1970 with South Texas counties receiving $750,000 of it (San Antonio and Bexar County's share was $250,000). Services are channeled through local Community Action Agencies (CAAs), clinics and offices of Planned Parenthood and coordinated with the Department of Health. As expected, San Antonio with its large number of Mexican Americans and migrants has the highest program intensity in the state, followed by the home base area of the Lower Valley.

Credit for the successful pursuit of the family planning campaign must be shared by several efforts. First among them is the wholehearted conviction and dedication of all persons involved in this work. Implementation of Planned Parenthood's interstate referral system aimed at continuity of services while on stream has helped to build confidence as has the development of more simplified bilingual explanatory materials for wider distribution. A new soft sell approach that has merit no longer uses the argument that to have a large family is "bad" but rather that your children need your love, care and attention which is impossible if there are too many of them, hence having smaller families is doing your children a favor.

In conclusion we will briefly cover the new developments mentioned in the first paragraph of this section, leaving details until next year's report when an evaluation can be presented.

1) Health Educator. Although this position has been provided since the Migrant Project's beginning, it was not filled until March of 1970. The goal of the health educator has been first of all to reach people through live demonstrations. The two subjects of top priority have been child care and nutrition. Demonstrations rely heavily on explanatory visual materials as well as group participation. They also serve as a training tool for nurses and aides in migrant work. All hand-out material is bilingual as are the demonstration posters.

2) Computerized Processing. A card file (5,000 so far) is being assembled for all migrants which will contain their health history and future services needed. This data is put on tape for immediate reference. The data bank is to be used for referrals when services are required (either in the work area or at home base) and when service is received it is then taped on the permanent record.

3) National Digest. This is a national listing of all the regions serving migrant families and gives the exact location of their clinics or service centers. When a migrant's destination is known he is referred to the nearest facility, which in turn is informed of his approximate arrival and the service sought.

4) Texas Health Data Institute. Established by the Inter-Agency Health Council in July of 1970 to develop a comprehensive health information system and to issue periodic reports containing health information. Resource material used by the Data Institute will come from different cooperating state agencies and, most importantly, from the multitude of information contained in the summary tapes of the complete counts of the 1970 Census.

Goals:

As in the section on Education, we would like to present the health goals as set by the Governor's Division of Planning Coordination as they appear in our brief notes.

1) Expand the "comprehensive health planning" effort.
2) More school health education by the Texas Education Agency.
3) Strengthen T.B. cooperation with Mexico.
4) More dental health services for migrants (particularly children) as this is a very neglected area. If nothing aches, nothing is done.
5) Free immunizations for everything.
6) Family planning. Vital. Cooperate with private and independent groups.
7) Expand federal funded "migrant project" and tie in health education component stressing "preventive" angle.
8) Free glasses and hearing aids to the needy.
9) Mobile services—good idea to take services to the needy. Staffing will prove difficult.
10) Develop and train health education aides from ranks of migrants. They can work better with own people, inspire more confidence.

D. JOB DEVELOPMENT:

Among us, there are those who are opposed to any governmental intervention into areas that have traditionally been areas of personal interest. Individual decisions concerning career choice, job preference, etc., and implementing the decision with the necessary education, training or preparation was always a personal matter. There was always plenty of free advice (but seldom much material aid) from friends and relatives when the time came to go off and seek one's fortune and enroll in that mythical institution known as the School of Hard Knocks. We can all recall a number of prominent, wealthy and influential graduates from that school who left indelible marks on our society and our nation in the past, but now the road they traveled is not used much any more. Times have changed. The pace of life is in constant acceleration and the national job mix is in constant flux. Change in the workforce pattern is everywhere evident, new occupations are born while old, established ones disappear. What happened to the blacksmiths? Why do farm workers number one-fourth of what they did 25 years ago? Why have workers in service occupations doubled during the same period?

It is clear then that intervention is necessary (like it or not) to assist all who are able and want to work but who are incapable, for one reason or another, of finding a job or settling into an occupation. Since employment trends are nationwide and the nation's income depends in part on taxes on employment income, it is only natural that the government should assume the principal role in employment orientation and employment security. To accomplish this, the Department of Labor first became actively involved in the employment business almost a half-century ago when it established the employment service to fill jobs and answer employer's requests for employees. Until a few years ago this was the classic and routine procedure of the employment service—send out the best qualified people for the job employers offered. In this regard also, times have changed. The concept that employment departments should be exclusively employer oriented was in error; what about

those people who are willing and able to work but for whom there are no jobs? In short, education and job training in preparation for a job is but half of the responsibility; the other half is job development and placement.

For years state Chambers of Commerce have vied with each other in their attempts to lure industry and manufacturing into their regions. The promotional budget and the level of economic subsidy proffered were often times decisive factors in a company's choosing the location for a new job-generating plant or facility. The promotion is generally directed at the "general prosperity" of the region and is commendable, as far as it goes, but it does not always produce new jobs in accord with needs. Hence, it has recently become apparent that it is crucial that the same agencies and departments of government involved in training and skill development should likewise be involved in job development. So it was that in March of 1969, the Farm Labor Service was changed to Farm Labor and Rural Manpower Service to help break out of the restriction of "farm" and get into the broader field of rural labor sources and their placement. At the end of 1970 the FL&RMS was again renamed and simplified to Rural Manpower Service, with particular emphasis on the last word. Thus the Manpower Administration programs, such as Concentrated Employment Program (CEP), could redirect themselves to the complete employment picture in rural areas. This scope broadening was explained in a Department of Labor directive stating, "The operational concept of CEP is to provide service to the individual person, whereas the operational concept of the employment service has been to serve the employer by sending him the employees he required."

An example of what is being tried is an E. & D. Project in Ottumwa, Iowa. This was an experiment in reorganizing the operational procedures to improve the quality of manpower services in a 12 county rural area in southeastern Iowa. At the start of the project the area had been served by four small local offices, each responsible for a fixed geographical area. The project replaced this set-up and established a "central" office located in Ottumwa—the economic and commuting hub of the area—and designated the four offices as satellite or feeder offices, under central office administrative control. Job orders and applications taken in the feeder offices were held for twenty-four hours of processing and if no action could be taken by then they were transferred to the central office. This then gave both the applicant and employer access to more opportunities over the total 12 county area and resulted in increased placements. It also put the applicant on record with the larger and more experienced central office staff. Iowa sold itself on the results and has incorporated the technique into its regular operating procedure. Eleven other states are testing similar experiments in FY—1971.

But how far should the government go in job development? Should it actually "create" jobs? Opinions on this topic grow more numerous every day. Opponents claim that to hand out dead-end jobs is degrading and costly while others say that being out of work and on welfare is more degrading and just as costly. It seems pertinent to recall that back in 1939 we spent 2.8% of our GNP providing jobs for those people the labor market could not absorb; this last year the figure was under 0.5%. Back then we often heard, "But the W.P.A. is just like pouring money down the drain." Now we are more apt to hear, "The W.P.A.

helped to bring the nation out of economic chaos and at the same time left many permanent works that are being enjoyed to this day." Now with the New Federalism stalled and little agreement between the Administration and Congress on the make-up of a new Manpower Training Act is is unwise to speculate on the form or amount of government effort that will be used to produce jobs but one can be certain that government agencies, in one way or another, are in the job development business to stay.

This subject should not be closed without mention of the positive efforts being made by private groups and organizations. Job Opportunities in the Business Sector (JOBS) is an effort on the part of the National Alliance of Businessmen (NAB) to create permanent jobs and tie in a training component to them so that earning-while-learning becomes immediately effective. Most new-hire trainees for this program are selected through local CEP agencies or state employment services. During 1970 there were 87,000 new jobs and one in every eight of these was filled by a Mexican American. Joint Action in Community Service (JACS) works principally on placements for Job Corp graduates who have returned to their homes and find no job for their recently acquired skill. One strong feature of JACS is its nationwide corp of "volunteers" whose interest goes beyond the job and tends to lend social and emotional stability to the new job holders. The McAllen Trade Zone, Inc. was awarded a Foreign Trade Zone permit last year and now this Lower Valley town is busy putting together the physical facilities on a 40 acre tract just beyond the city limits. The originators of the plan state, "The purpose of the Zone is to bring industry to the Valley, stimulate foreign trade and create new year-round jobs for area residents." Raw materials and semi-finished goods can be brought into the Zone where manufacture or conversion can be done by local workers and the finished product can be exported without the payment of duties. The Zone can also be used as a warehousing facility permitting packaging, labeling, etc., and duty is paid only when the end product enters the commerce of the United States. It is easy to visualize a wide variety of skilled and unskilled job opportunities opening up as firms begin to take advantage of the Zone's unique possibilities. Next year we will have more to report on this venture in job creation and community prosperity.

TEXAS STATE DEPARTMENT OF HEALTH
MIGRANT PROJECT
NEW REGIONAL ALIGNMENT — 1970

REGION I
Lubbock
94 Counties

REGION II
San Antonio
120 Counties

REGION III
San Benito
40 Counties

TRENDS IN MIGRATION AND SUMMARY OF DATA – 1970

1970 probably ushered in the most dramatic changes in seasonal farm labor since the readjustments caused by the termination of the Bracero Program. Predictions of what might happen were all too frequent and the different causal factors have been discussed and evaluated at great length but none of us was prepared for the actual extent of these changes and their effect on migrant workers. Factors such as weather and planted acreage are reversible and show different effects from year to year, but factors such as mechanization and higher labor costs, being essentially irreversible, will continue the trend of further depressing the migrant situation. As our previous reports have shown the total Texas migration has been declining each year by about 4% which more or less correlates to the annual reduction in job opportunities. We estimate that last year's total migration was less than the previous year by about double that percentage, and the loss in job opportunities is estimated to be between 15 and 20%. It is difficult to be convincing when using estimates, but as we warned last year, exact figures are impossible to come by due to the sharp increase in "freewheelers" and to the consequent weakened statistical position of the Texas Employment Commission and the Bureau of Labor Statistics. Convincing or not, the fact is that throughout the Great Lakes region and the Midwest literally thousands of migrant jobs failed to materialize and those most affected were precisely the freewheelers who had no firm job commitments.

Last year all of the consumer states repeatedly sounded the alarm by printing in each issue of their farm bulletins a warning not to travel to their states without a definite job commitment. Employment staff people were well aware that work would be short, but the final reality of just how short came as a shock. And so the freewheelers came to meet with disappointment. By combining information received from various agencies and employment services in the labor demand states with whom we are in contact we conclude that there were 18,000 less jobs for migrants in agri-related work last year. Field work was less, harvest jobs were fewer (particularly in labor intense crops such as cucumbers and cherries) and in-plant food processing openings were also fewer. Bad weather and poor ground conditions caused a loss of work as did reduced acreage in crops that had abundant harvest the previous year. The general economic slump of 1970 added its effect by causing a cut back in marginal local jobs thus releasing local labor for field and processing jobs — hence, less need for migrants.

The trend toward more mechanization continued to take its toll of jobs by replacing men with machines. This will continue. The most important contributing factor is the constant rise in labor costs. The federal minimum wage for general work is $1.60 and for farm workers, it is $1.30 per hour. Thirty-seven states now have minimum wage laws and thirteen of them are equal to or higher than the federal minimums. Of the eleven states that have farm worker minimum wages, all are invariably lower than the general minimum wage. So the farmer/grower feels himself buffeted by the impact of the cumulative effect of the three-year progression in the minimum wage and by the certainty that the agri-minimum will soon be moved up to match the general minimum wage. Add to this the fact that the Department of Labor has assigned 900 compliance officers to assure that minimum wages are respected AND that some states have laws stating that if piece work earnings do not

reach the minimum hourly wage the hourly wage will prevail, and you have some of the reasons why mechanization is more than just a trend.

Later in this section we will show what has been happening to our T.E.C. during the last four years as concerns farm placement and allied information pertinent to our Texas migrants. However, right here we would like to update a recap of the interstate migrant make-up for the purpose of comparison. The mix remains the same but the total is less than sixty percent of what it was in 1967.

Interstate Agricultural Migrant Make Up
1966-1970

	1966	1967	1968	1969	1970
A. Total Individuals	104,224	114,979	97,818	85,393	65,844
a) Male, 16 and over	38,248	41,657	33,050	31,163	23,576
b) Female, 16 and over	29,267	33,299	29,568	23,509	17,947
c) Youth under 16	36,709	40,023	35,200	30,721	24,321
B. Total Workers	69,956	78,270	67,829	59,737	45,197
a) % of Total Individuals	68.3%	68.0%	69.5%	70.0%	68.7%
C. Families	14,756	16,524	13,638	11,700	9,311
D. Unattached males	7,075	7,384	8,042	7,871	5,610
E. Unattached females	1,682	2,074	2,257	2,198	1,775

Note: These figures do not include Bureau of Labor Statistics data or "freehweelers."

The Texas Bureau of Labor Statistics shows 24,500 workers recruited under B.L.S. regulations for out of state work. This number is a sharp decrease from the previous year, as the following figures show:

Workers Only Recruited From Texas: Bureau of Labor Statistics

1964 — 28,810
1965 — 40,251
1966 — 36,463
1967 — 34,158
1968 — 35,846
1969 — 36,015
1970 — 24,520

During these years the totals remained steady and the proportion of workers recruited from the Lower Valley also remained steady — until last year. On the following page we can compare the recruited worker contribution of the four Valley counties.

Distribution of Workers Recruited from the Lower Rio Grande Valley
by Licensed Labor Agents: 1965-1970

Year	Number	Number and Percent of Workers from Valley Counties							
		Cameron		Hidalgo		Starr		Willacy	
		No.	%	No.	%	No.	%	No.	%
1965	14,669	5,762	39	7,622	52	309	2	742	5
1966	14,948	5,060	34	8,881	59	170	1	826	6
1967	14,406	4,984	35	8,321	58	258	2	843	6
1968	14,002	4,906	33	9,166	61	170	1	743	5
1969	14,002	4,672	33	8,386	60	224	2	720	5
1970	11,127	4,009	36	6,416	58	123	1	579	5

The loss of over ten thousand workers is a definite financial blow to the B.L.S. as its licensing income is diminished and it also brings up the question; "Is illegal recruiting on the increase or has this number of workers just decided to free wheel it on their own?"

The Annual Worker Plan has been serving farm workers and farm employers since its inception in 1954. The purposes of the plan are to decrease time lost between jobs by the migrant worker and to help provide a dependable labor supply for the farmer/growers. Actually, the word plan could be substituted for by "itinerary" or "schedule" as this is what it is all about; coordinating worker availability with labor needs for as much of the season as possible. Basically, it is a system of referring (referrals) workers to jobs (orders). Several weeks before the work season is to begin employment people in the labor supply states interview families and crews on availability, work experience and preference in work area. At the same time the labor demand state's officials are busy determining over-all needs and specific area needs for workers. Once needs are translated into firm orders the first step has been taken in matching. The final step being the filling out of a Form—369 which then becomes a mutual commitment for both farmer and worker.

With minor modifications the Form—369 has done a very satisfactory job over the years but since 1967 it has been in real trouble. Several times before in the body of this report we have mentioned what seems to have happened when the 1967-68 federal housing regulations went into effect. The failure of many employers to comply with the new standards has almost blown the Plan out of the window. The figures on the following page show that the decreases are slowing somewhat but that is of little solace when we survey the damage already done to our system of job placement; the mutual commitment is badly weakened.

MAJOR AGRICULTURAL MIGRANT LABOR DEMAND AREAS

WINTER

SPRING

SUMMER

FALL

	1970	1969	1968	1967
Total farm placements	196,000	206,000	234,000	263,000
% less than previous year	5%	12%	11%	
States sending job orders	31	33	34	39
Job Orders	1,005	1,147	2,072	2,451
% less than previous year	13%	45%	15%	
Job Openings	50,027	67,345	102,791	132,660
% less than previous year	26%	35%	22%	
Jobs Referred (filled)	35,176	50,830	73,460	85,574
% less than previous year	31%	31%	14%	
T.E.C. Orders	633	699	1,261	1,365
% less than previous year	9%	45%	13%	
Crews + Family Heads	2,300	3,162	3,902	5,182
Out of State Groups	3,090	3,010	3,426	3,674
	5,390	6,172	7,328	8,856
% less than previous year	13%	16%	17%	
Average number of jobs filled per worker	1.1	1.1	1.4	1.5

Before closing this report we should say a little concerning the economics of the migrants. Their wage scales are the lowest of any industry and they only get paid when they work and the seasonality of agriculture allows them work less than 50% of the time. In other words, partial employment at the nation's lowest pay scale adds up to a poverty level existence where many of the essentials of life are completely out of reach. The earnings gap never seems to close on a national average, as the figures on the next page show, and in Texas it is even worse. One of the reasons for the desperate economic situation of the Lower Valley farm worker and the returning migrant who depends on winter agricultural work, is the low wage offered (here again the commuter casts his shadow). The average hourly wage for farm work in Texas remains close to 20% under the national average, and the data we have for the Lower Valley indicates that there the wages are another 25% below the state average.

Trends and Summary

Figures are in thousands of workers

EMPLOYMENT	1969	1968	1967	1966	1965
Total Employment	77,902	75,920	74,372	72,898	72,179
Agriculture	3,606	3,817	3,844	3,847	4,585
Percentage	4.7	5.0	5.2	5.3	6.4
Seasonal Hired Farmworkers	570	578	592	622	673
UNEMPLOYMENT RATE					
All Workers	3.5	3.6	3.8	3.8	4.6
Agriculture	6.0	6.3	6.9	6.6	7.3
HOURS AVG./WEEK					
Non-agriculture	39.1	39.7	40.0	40.1	40.2
Agriculture	46.1	46.3	46.5	46.5	45.7
WAGES/HOUR					
Farm Worker without Room or Board	1.58	1.43	1.33	1.23	1.14
Factory workers	3.19	3.01	2.83	2.72	2.61